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The Excavations at Ur, 1926-7

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INTRODUCTION

THE Joint Expedition of the British Museum and of the Museum of the University of Pennsylvania started its fifth season at Ur on 28 October 1926, and closed down field work on 19 February 1927. Of the staff, three had been with me in the previous season: Mr. M. E. L. Mallowan again acted as general archaeological assistant, Mrs. Keeling was responsible for the drawings, and Mr. A. S. Whitburn was architect; this year the inscribed material was dealt with by the Rev. E. Burrows, S.J.

Owing to the character of the work, fewer men were employed than usual, the average number on the pay-books being 130. As always, they were under the general control of Hamoudi, of Jرابلس; his son Yahia acted as photographer and kept the attendance sheets, and his second son Ibrahim was junior foreman.

Though the gang was comparatively small, work was at high pressure throughout the season, and we got through a very great deal in a short time; indeed, Hamoudi's energy enabled us to beat all records in actual output, and it was hard for our work of recording to keep pace with the men: that it did so is due to the ungrudging labours of my staff, to whom I owe my sincere thanks for a successful year.

The work fell into two distinct parts, the excavation of building sites and the digging of graves. The report on the latter will appear in a future number of the *Antiquaries Journal*: in this number I shall deal only with the buildings. The first month was spent in

the excavation of part of a large mound lying against the south-west wall of the temenos, where experimental work done at the close of the previous season had proved the existence of well-preserved house ruins of the time of Abraham ; the description of this occupies the greater part of the following report. In the course of the second month we unearthed the scanty remains of a large-building of the Larsa period situated between E-Gig-Par and E-Harsag, inside the temenos ; we dug out the north corner of the temenos itself and discovered a new gateway in the temenos wall ; while half of the men were engaged on this work and on the further excavation of E-Nun-Mah, a temple found in our first season, the rest, under Mr. Mallowan, cleared what remained of an important royal building lying about a mile away to the north-east of the temenos enclosure : for the report on this Mr. Mallowan is responsible. Lastly, a certain amount of work was done against the south-east and south-west faces of the Ziggurat (pl. XLVIII, 2), throwing valuable light on the history and character of the enceinte wall of the Ziggurat terrace, E-temen-ni-il : the description of this is held over for the final publication of the Ziggurat.

THE SITE 'E M' (pl. xxxix)

Preliminary work had been done on this site at the end of the season 1925-6, and had sufficed to show that it was occupied by well-built and well-preserved private houses which would certainly repay excavation. The clearing of it was accordingly the first item on our programme for this year.

The site lies outside the Nebuchadnezzar temenos, close to the south-west wall and towards the southern end of it ; it was a lofty mound, one of the highest in all the ruins of Ur, and on its summit there were traces of cuttings made in it by Taylor during the course of his excavations in 1853. Between the mound proper and the line of the temenos wall (here much denuded), there ran a slight depression where the open space bordering the neo-Babylonian temenos had received the surface drainage of the mound ; this channel deepened towards the north, and then turning sharply south-west descended in a violently eroded wadi to the level of the plain. Already in 2000 B.C. the mound was standing to a considerable height, and the houses had been built on a series of terraces cut into its flanks ; the destruction of those buildings naturally entailed the destruction of the terrace edges, and for later constructions fresh cuttings were driven into the hill side, damaging yet further what was left of the older ruins. Moreover, the whole area was greatly denuded by weather. On the summit

of the mound there remained but scanty traces of anything later in date than 1200 B.C. ; on the south-west flank, originally the steepest, nearly all even of the Kassite terraces had been washed down ; the wadi along the north-west had cut deep down below the foundations of the Larsa period, and even along the north-east side, where the damage was less apparent on the surface, the Larsa walls dwindled to nothing, and of the massive temenos wall of Nebuchadnezzar, built on a lower level at the mound's foot, only two or three courses of brickwork were left. On three sides, therefore, our excavations were limited by the nature of the site, and we had to deal with a long narrow area lying north-west by south-east measuring some 12000 m. by 4000 m. ; of this we cleared the north-eastern half, working down to the floor level of the Larsa period, i.e. to a maximum of about five metres from the modern surface.

In the upper strata the building remains were too fragmentary to give information of value, only a few disconnected walls and drains representing the neo-Babylonian period : of the Kassite period there were recovered two plans, incomplete, enough to show that then too the site was occupied by private houses with graves beneath their floors ; of the objects found the most interesting were a ' pilgrim-flask ' of pale blue glazed ware and a small fluted bottle of blue and brown glass made with glass rods wound round a core according to the ' Phoenician ' technique, but a piece of a similar glass rod bearing at one end the imprint of the pincers showed that the technique was practised at Ur and that the bottle might have been of local manufacture ; it should date about 1300 B.C.

The real interest of the work lay in the discovery of a well-preserved town quarter of the time of Abraham ; on the main level we unearthed streets and houses which throw a new and unexpected light on the social and domestic conditions of the period. The current theory, justified by the results of previous excavations, was that the ancient Babylonian, and *a fortiori* the ancient Sumerian, private house was of the most modest description, a single-storied building in mud brick, consisting of three or four rooms opening on to an open yard, the sort of house that one may see to-day in any of the squalid villages of Syria or Iraq.¹ Hitherto our work at Ur has tended to confirm this theory, at least for the neo-Babylonian period, but now, for 2000 B.C., we have a very different picture ; burnt brick was freely used, the quality of the construction,

¹ This is certainly the case with the town area excavated at Babylon, though Herodotus i, 180, says τὸ δὲ ἄστυ αὐτὸ ἐὼν πλήρες οἰκίῶν τριωρόφων καὶ τετρωρόφων . . .

bricklaying, &c., was remarkably good, the buildings were often of two stories, and both in ground-plan and in elevation the house of a well-to-do citizen of Ur was almost a counterpart of that of a well-to-do citizen of modern Basra or Baghdad.

The streets are mud-paved and, as in every modern town of the Near East, very narrow; this narrowness has the advantage of keeping the sun off the house walls and thereby relieving the summer heats, but doubtless it was largely due to the value of building land, and there was no objection to it on the score of wheeled traffic, for all transport was by portage or pack-ass; in evidence of this is the fact that nearly all street corners are rounded off, the brickwork either built on a curve or trimmed after building, so as to avoid the scraping of the pack-load or of the rider's foot, while in Gay Street there stands against a house wall a flight of brick steps which recalls the mounting-blocks common in England a century ago and, perhaps more appositely, the stone benches which on the outskirts of North Syrian towns still serve for the lading and unlading of the camel caravans. The streets run more or less at right angles and fairly straight, but with a kink here and there as a house-front projects or falls back from the main line: clearly the houses were not aligned to a road frontage already planned, but were built haphazard each on its own plot of ground, and the street or lane follows the vagaries of these ground-plots, owing such regularity as it may possess to the fact that the plan of each house was rectangular so far as might be: in Ur of the second millennium there was no comprehensive scheme of town planning.

The house doors open directly on the street, but otherwise there is nothing to relieve the blank walls whereby the streets are enclosed. Certainly there were no windows in the exterior walls of the ground-floor rooms, and although the disappearance of the front walls above first-floor level makes it impossible to assert definitely that there were higher up no windows giving on the street resembling the lattice-shrouded windows of the modern Arab house, yet the evidence so far from being in favour of such a condition tends rather to show that the houses, generally speaking, had few and small windows or none at all, and it is most probable that the house fronts were wholly blank.

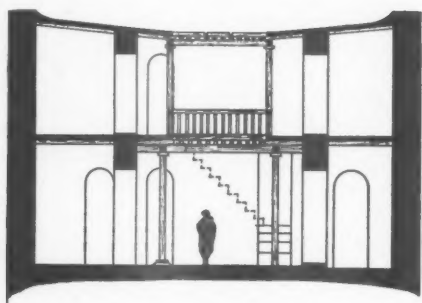
Just as the lay-out of the town depended on the accidents of private ownership, so the municipality seems to have taken little interest in such matters as upkeep and scavenger work, if one may judge from the steady rise in street levels due to the accumulation of rubbish. In many cases the threshold of a front door has had to be raised to keep the dirt of the new road level from coming



1. General view of house site from west

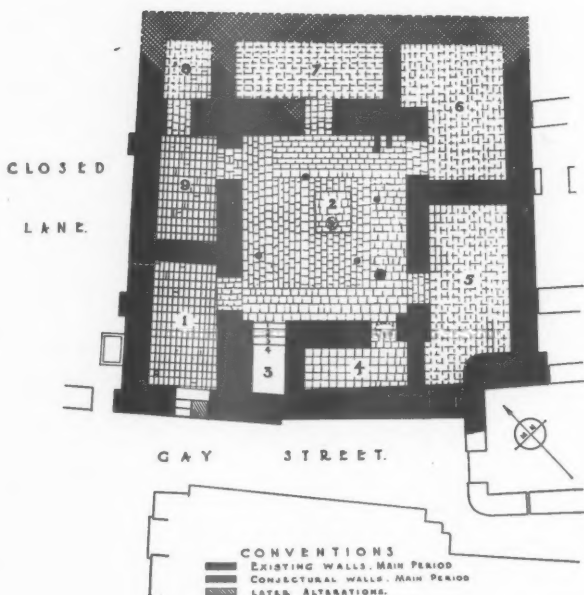


2. View looking NE. along Quiet Street to Gay Street, showing blank house fronts and doorways



CROSS SECTION.
N° 3 GAY STREET

SCALE OF METRES



CONVENTIONS
EXISTING WALLS. MAIN PERIOD
CONJECTURAL WALLS. MAIN PERIOD
LATER ALTERATIONS.

N° 3 GAY STREET

SCALE OF METRES

Plan and section of no. 3 Gay Street

through the door ; where a house has been remodelled or a new building put up on an old street line the sill of its entrance door may be anything up to a metre above the original street level as defined by older doorways—thus, in Gay Street, the old mounting-block was in time totally submerged, and the threshold of no. 4 is a metre above the footings of the front wall of no. 3 which the original roadway had left exposed.¹ Similarly there is reason to think that the space between nos. 2 and 3 in the same street was once a thoroughfare which was closed to the public by the owner of no. 3 (in the plan it is called 'Closed Lane'), and if that be the case it is further evidence of municipal slackness : but on the other hand part of no. 4 was certainly cut away to make or to widen the street, and as it is hard to suppose that the sacrifice was voluntarily made by the proprietor, we may have here witness to some public authority responsible for the city's roads.² It would be unwise to lay too much stress on evidence so slight as we have ; even in the case of the raising of the street level, which is certain in itself, we must remember that the street was in use for a very long period, over two hundred years, and that in such a length of time the accretion of a metre or more is not surprising. This evidence, however, ought to be employed if we are to get any idea of life at that time, and on the whole it does point to a condition of things very much like what prevails in a modern native town of the Near East, where the local government interferes seldom and without system, and it is the private householder, if anybody, who looks after the road that leads to and past his house.

The houses excavated by us differ considerably in size and in character, another sign that there was no town-planning scheme, but from them there emerges one prevalent type to which the houses of the better class at least would seem to have conformed,

¹ Generally speaking, therefore, the ground-level of the house was lower than that of the street ; even where, owing to the repaving of the interior, one had to step up from street to house, that might be due to the fact that we had excavated down to early street level and had removed the road-surface contemporary with the late house-pavement. An *Omen Text*, dealing with house features, says, 'If its threshold drops towards the inside, revenue will come in ; if its threshold drops towards the outside, there will be outgoings (expenses).'² Certainly it was almost invariably the case that the front door sill was raised, so that one had to step over it to enter ; the *Text* says, 'If the threshold of a man's house is higher than the court, the master of the house will be set over the mistress of it : if the threshold of the court is higher than the (level of the) house, the mistress of the house will be over the master of it.'

For these and subsequent quotations from *Omen Texts* I am indebted to Mr. C. J. Gadd.

² 'If a house blocks the main street in its building, the owners of the house will die ; if a house overshadows or obstructs the side of the main street, the heart of the dweller in that house will not be glad.' *Omen Text*.

though in each there may be modifications due to the accidents of site or the means and tastes of the builder. Of this type the most complete, though not the best preserved, example was no. 3 Gay Street, of which I illustrate the ground-plan, the existing ruins, and a restored view as worked out by Mr. Whitburn and myself (pls. xli, xlii, xliii, 1).

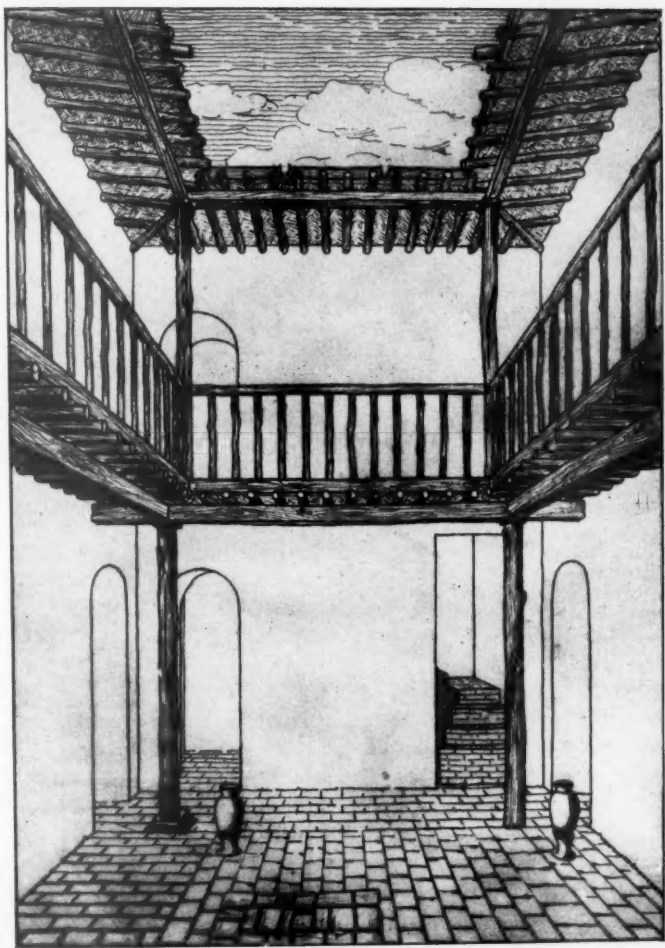
The essential feature of the ground-plan is the central courtyard, a rectangle surrounded by chambers which open on to it. Sometimes, owing to the shape of the building site, the court could not be really central, and has rooms only on three sides or on two, but in every case the court is there, and necessarily so, inasmuch as on it depended the air and lighting of the rooms, and again, since there were no passages and but few communicating doors, it was through the court that one had access to the different parts of the house.¹ Nearly always the court was paved with burnt brick, as one would expect, seeing that it was open to the sky, and generally there was in the middle of it a drain-top leading down to a deep vertical drain made of clay pipes pierced so as to allow the water to run off into the lower soil.² In the general plan of the site (pl. xxxix) the courtyards are shown as paved (whether they were so in fact or not) so as to make evident the ground-plan of each house, and a very little examination will suffice to show how under all accidental modification there is yet a uniformity of design of which the courtyard is the nucleus.

In the construction of the house burnt brick was used to an extent dictated apparently by the builder's means. In the better-class houses the whole of the front wall at least to the height of the first floor would be in burnt brick,³ interior walls of burnt brick to a height of a metre or a metre and a half; in poorer houses the burnt-brick work was reduced to what was practically a damp course only two or three bricks high. The mortar was mud; bitumen was only used in important public buildings; lime mortar does not seem to have been employed at Ur before the seventh century B.C. Above the burnt brick the wall was carried up in crude mud brick with matting occasionally laid between the courses to give a through bond: as both burnt and mud brick

¹ 'If the door of the room (RUKBU) opens on to the court, that house will be enlarged; if the door of the RUKBU opens inside the house, that house (will be) broken away.' *Omen Text*.

² 'If the water in the court runs to the back, expense will be continual; if the water in the court runs to the middle of the court, that man will have wealth.' *Omen Text*.

³ 'If the front of the house is made of plaited reed, the house will be scattered; if the front of the court is made of matting, the master of that house will be afflicted.' *Omen Text*.



Restoration of no. 3 Gay Street



1. No. 3 Gay Street from NE., showing central court, staircase, &c.



2. No. 2 Quiet Street : central court and staircase

walls were plastered with mud (freely mixed with chopped straw) and whitewashed, the difference in the material was not noticeable, and the object in employing a greater proportion of burnt brick was strength and not looks. The bricklaying was admirable. The walls were thick (the norm is 0.70-0.85 m.), and in the case of burnt-brick construction only the wall face is of good brick, the core being of brick rubble, but the builders were careful to bond facing and core together by a plentiful use of headers, just as in the wall face itself a broken bond was secured by the employment of half bricks.¹ The street door, which generally was set near one corner of the house, opened into a small chamber, little more than an entrance lobby, where one can imagine the porter sitting as he does in a modern town house. The floor was usually brick-paved, and in the case of no. 3 Gay Street, there was in the corner behind the door a drain opening, probably for the jar which would contain water for the washing of the feet of those entering the house. From this lobby one passed on into the central court.

Of the ground-floor rooms opening off the court it was not possible to determine the character in every case, especially as there were seldom any distinctive fittings, and few objects were found in them, but something at least could be made out. As a rule there was on the far side of the court, opposite the entrance door, a room rather larger than the rest and often shallow in proportion to its length,² entered, as in no. 3, by an unusually wide doorway or, as in no. 2 Quiet Street, by two doors; this can reasonably be taken to have been the 'liwan' or reception-room, the principal public room of the house. The kitchen was also on the ground floor (in no. 3 it is the large room on the south-east, numbered 5) and could be identified by the querns found in it and by the remains of the fireplace—an open hearth in a corner of the room with a low mud hob, the ashes still *in situ*, and the wall above blackened with wood smoke. One of the doors on the courtyard is that of the staircase going up to the second floor: the lower treads, contrived in the wall thickness, are of solid brick, steep and shallow like modern Arab stairways; then came a landing and a return flight carried up on wooden beams. In no. 2 Quiet Street at some period of reconstruction part of this second flight also was built in brick, a new party wall being erected to

¹ In the modern buildings of Baghdad the walls are similarly formed of two skins of brickwork with a rubble core between them; but as, by a false economy, the bricklayers lay all the bricks as stretchers, there is no bond and the tendency is for the outer face of the wall to peel off exposing the core, which rapidly disintegrates and the building collapses.

² In no. 3 Gay Street the north-east wall had been entirely destroyed, and the rooms here may have been larger than is allowed for in our restored ground-plan.

contain the earth filling on which the brick treads rested, but even so the upper part of the flight was of wood and in other cases the whole flight, the supporting beams forming a sloped roof over the small room which invariably came next to the staircase. This little and low-ceilinged chamber (4 on the ground-plan of no. 3) contained the lavatory: it had a brick-paved floor and a drain, and in one instance, no. 3 New Street, there was preserved the rectangular slit in the raised pavement with its brick-lined base sloped down to the drain-head which is the form of lavatory characteristic of the modern Arab house. In some houses, though this seems to have been the exception rather than the rule, one of the ground-floor rooms took the form of a private chapel containing the family burial vault; where such was lacking burials might be found under the floor of any of the rooms. In no. 3 Gay Street, room 6, which did contain a vault, may possibly have been a chapel, but its walls were too ruined for any distinctive features to be preserved and its character must remain doubtful. The nature of these chapels will be discussed later (p. 399).

There was plenty of evidence to show that the rooms of the ground floor were fairly lofty. In no. 3 New Street the walls were preserved to a height of 2.65 m., and in nos. 3 and 5 Quiet Street to 2.50 m., and in neither case was there any sign of the ceiling timbers; in a burnt-brick buttress in room 5 of no. 3 New Street there was a hole (due to a single brick being missing) which might possibly have been, but was not necessarily, a lodgement for a beam, and this was at 2.80 m. above floor level. Similarly the doorways were very high, and jambs standing up to 2.80 m. showed no signs of any lintel. Most important for the restoration of the houses was a discovery made in room 5 of no. 3 New Street. The walls here were of burnt brick up to a height of 1.25 m., and were carried up above that in mud brick, still preserved to a total height of 2.80 m. above the pavement: fallen exactly on the threshold was a mass of burnt brickwork which was the original door-head; it was an arch, built of ordinary bricks, not voussoir shaped, with radial joints of mud mortar, and luckily the bricks of about half the span still kept their position, though fallen, and retained the original curve of soffit and crown (pl. xlv, 2). Invaluable as it is for the restoration of the houses, this discovery is of a still more far-reaching importance. We had already been obliged to modify our ideas of Sumerian architecture by the discovery of a standing arch in the temple of Dublal-Mah as restored by Kuri-Galzu about 1400 B.C.: now we find arches in private houses nearly seven hundred years older, and it is impossible to suppose that the use of the arch was confined to

private buildings. Kuri-Galzu's Dublal-Mah is a replica, at least so far as its ground-plan is concerned, of a Larsa building contemporary with our houses, and what we could not assume before now becomes possible and even probable, namely, that in its elevation also it reproduces the features of the older work. We need not hesitate to put arches in a temple of 2000 B.C. where the lines of the plan seem to call for them, and if arches, then too barrel-vaults, such as occur freely in contemporary tombs, and even domes, built on the principle of barrel-vaulting, become likely features of Sumerian architecture. It is not too much to say that the little heap of bricks fallen on the threshold of the New Street doorway constitutes a revolutionary discovery.

The preservation of the courtyard walls which proved the height of the doors also proved that the ground-floor rooms boasted no windows. Indeed such were not necessary. With the strong sun of Mesopotamia a very small aperture gives light enough, and large windows have the disadvantage of letting in too much heat and dust; many rooms are lit only by their doors, and where the doors are as big as they were in these houses they are amply sufficient. This does not mean that windows were unknown; there is a ground-floor window in one of the early Sumerian houses excavated by Dr. Hall at Abu Shahrein (Eridu), and we found what was apparently a window-shutter in a house of the Kuri-Galzu period on the Gig-Par-Ku site at Ur; but in these particular houses no sign of a ground-floor window was found, and wherever evidence was available it was definitely against there having been any.

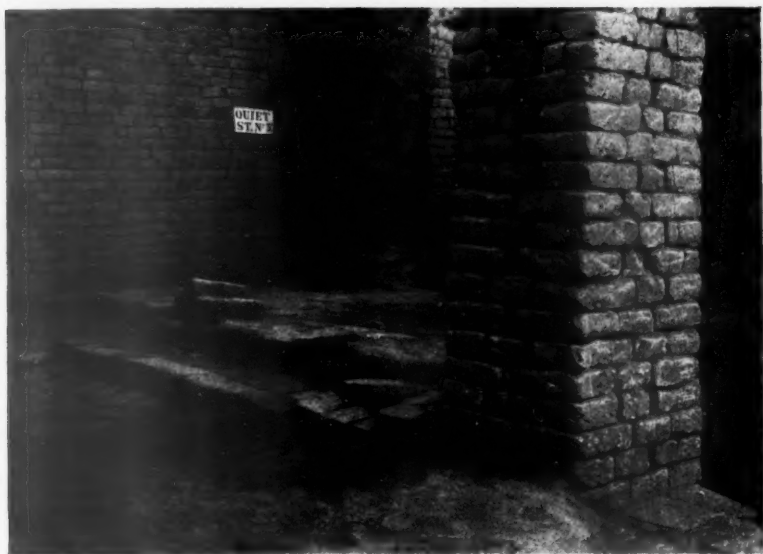
We now approach the question of the upper floor.

The presence of a staircase is not in itself proof that there were upstairs rooms, for the flat roof of an eastern house is always used, and there ought to be some way of getting up to it, but it is at least strong evidence. In the private houses of Babylon in the Nebuchadnezzar period, which were of one story only, the flat roofs were undoubtedly used, but the excavators did not find anywhere the least vestige of a staircase, and were forced to assume that the roof was reached, as in many modern houses, by means of a movable wooden ladder. The wide and solid stairs of Ur would be in striking contrast to the wooden ladder of later times if they served but the same purpose; the means would seem wholly disproportionate to the end. But a more positive argument is afforded by the disposition of the house itself. I have shown that in the case of no. 3 Gay Street we can identify, of the ground-floor rooms, the 'liwan', the kitchen, the lavatory, the entrance lobby, and possibly a chapel; this leaves only two rooms unexplained,

and for a house of this quality two rooms seem insufficient to serve all the other purposes of life for the family and for the servants : if the ground floor is the whole house it is ridiculous that so large a proportion of its area should be sacrificed to lobby, staircase, and lavatory, to domestic offices and to the reception-room, as to leave the household nowhere to live. If, on the other hand, we assume that the stairs led to upper rooms, the scheme of the house takes on a due proportion ; the public rooms, the offices and the servants' rooms are below, the upper floor serves the family for residence ; the parallel with the modern house comes out again, and is itself an argument.

The thickness of the walls, unnecessarily great if the house were of a single story, is well adapted to a two-story building, but as the thickness is uniform it follows that all the walls rose alike to the full height of the house, and that therefore the plan of the upper floor was identical with that of the ground floor, room corresponding to room, with the single exception that the stair-well absorbs what on the ground plan is a distinct room, the lavatory. Further, the ceilings of the ground-floor rooms would not be strong enough to support party walls on the upper floor, even supposing that the rooms were large enough to admit of subdivision, which is not the case ; either then the upper rooms had doorways communicating with each other, so that to get from the stair head to the chamber in the east corner of the house one had to go round through every other room, an arrangement which is definitely condemned by the *Omen Texts*, or there was some other means of access. The only alternative to making every room but one a thoroughfare—which is clearly a most inconvenient arrangement—is to have a wooden gallery round the court ; the stairs would lead out on to this, and the rooms would open off it, their doors corresponding exactly to those of the ground floor. Such a gallery is precisely what we find in the modern Arab house whose ground-plan so strikingly resembles that of the ancient Sumerian house, and that is in itself a strong argument ; but it would be rash to adopt the theory unless in the ruins there were some definite evidence of it. Unfortunately the walls are in no instance preserved to the height at which the gallery would come (this would, of course, be ceiling height, and I have already explained that ceiling height can only be deduced from negative evidence, the absence of beam lodgements in the walls as existing) so that we are compelled to look for less direct witness. To some extent this is forthcoming.

In the courtyard of no. 3 Gay Street the central drain seems to have got out of repair at some time and the householder made it



1. No. 3 Quiet Street: brick pillar to support roof on gallery and ruins of second pillar



2. No. 5 New Street: General view of Courtyard. The drain in foreground is of later date



1. No. 3 New Street, showing high wall of burnt brick supporting terrace beyond



2. No. 3 New Street: the fallen arch in the doorway

good by laying down a fresh course of bricks, a rectangle measuring about 1.20 m. by 1.10 m. (part of this was pulled away by our workmen following the pavement before it was seen that the upper course was *in situ*, the measurements are therefore approximate) with the drain inlet in the centre. The rectangle is duly concave, sloped toward the central drain, but as it stands some seven centimetres above the level of the rest of the pavement, water lying on the latter could not have got to the inlet, and therefore the drain was not intended to drain the courtyard as a whole. The only conceivable purpose of a drain thus raised above floor level was to carry off water coming from above, i.e. from the house roof, and to effect this, the house roof, to be brought within reach of the drain, had to project from the house walls well over the courtyard. Such a projecting roof with what one might call an 'impluvium' in the middle of it is not, of course, inconsistent with a single-story house, but it is more rational if it were designed to shelter, not merely the open court, but a gallery which is essentially an internal feature.

In the same courtyard, opposite the north-east jamb of the kitchen door and 0.75 m. away from it, there was a large brick bedded on to the pavement with mud mortar, and round it were traces of charred wood. Any one who has seen modern native houses will have noticed how often the woodwork has been ill cut to measure, and an upright, unduly short, has been jacked up by the simple expedient of a brick or stone: assuming that this had been the case in our Ur house also, we started to restore timbers in corresponding positions in the other corners and found that the scheme worked out perfectly. The existence of supporting posts is a further argument for a gallery, since the roof alone, being comparatively light, would not necessarily require it. We therefore restored a gallery, allowing for the usual overhang of the timbers beyond the uprights, which gave a passage width of 0.90 m. The roof was made to project well beyond the gallery edge, so as to give proper shelter, and therefore uprights were carried up from the gallery for its support; the double overhang reduced the 'impluvium' to the dimensions fixed by the raised patch on the courtyard pavement, and the addition of gutterspouts such as are universal in the modern houses assured the rain water falling direct to the drain inlet. The whole restoration is consistent with itself and with every feature of the ruins, many of which features could not be rationally explained on any other hypothesis; the only objection I can see to it is its remarkable modernity. When, however, every detail of the ground-plan, which is certain, can be found reproduced in the normal Baghdad

house of to-day, then if the elevation, restored on such evidence as there is without reference to the modern house, makes the resemblance still closer, the fact only increases its inherent probability.

Thus far I have dealt with a single house, treating it as a type, with only occasional reference to other individual buildings when it was necessary to illustrate some point by a detail better preserved there than in no. 3 Gay Street, but, as remarked at the outset, the type is in every case modified by the exigencies of space or the means of the owner, and therefore it would be well to add notes on the other houses even though the notes must necessarily be brief. Before doing so, however, a word must be said about the site in general, without which the plan published here might be in some ways misleading.

The quarter of the town represented by our excavated area was built soon after 2100 B.C. and was destroyed about 1900 B.C. (for the chronological evidence see later, p. 402): as the houses were put up by individual owners they were not likely to have been built at the same time—some sites may have lain open long after the neighbouring plots had been built over—and in the long space of two hundred years each house underwent repairs sometimes amounting to rebuilding. In excavating the buildings it was usually possible to distinguish between the different periods represented in each, and to date these relatively, but there was no means of correlating the changes in, or the rebuilding of, the various houses. On the general plan (pl. xxxix) we have tried to show each house in its best or most characteristic form, but we cannot say that the houses so shown are strictly contemporary with each other. Thus no. 3 Gay Street was certainly much older in its foundation than no. 4, but it suffered comparatively little change throughout the period, whereas no. 4 was twice modified and once virtually rebuilt; no. 3 is therefore in one sense contemporary with every phase of no. 4 and in another sense with none of them. Probably the plan, as a plan of the site, is not correct for any period, but it gives the relative positions of the houses and the main features of each: the detailed study of each house site must be reserved for the final report of the Expedition, and here only such remarks will be added as will amplify the general account given of the typical house.

Notes on Houses

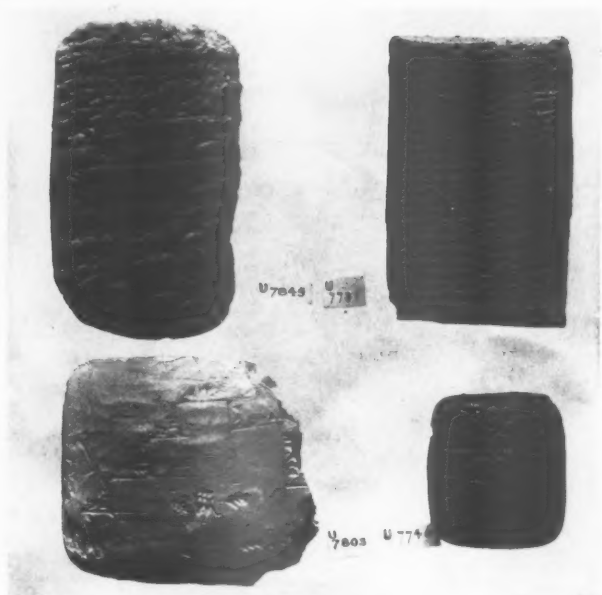
Gay Street, no. 4. The plan shows the house in its second phase, which must come late in the period of this quarter of the town; the earlier plan was difficult to make out in all its details, and even of it the foundations lay much higher than those of no. 3.



1. The chapel of 'Chapel House', showing brick floor, raised pavement, altar and niche, and brick vaulted tomb below floor



2. No. 7 Quiet Street: Children's graves in the chapel



1. Examples of tablets : U. 7849, business tablet, 3rd dynasty of Ur ; U. 7803, geometrical tablet illustrating method of calculating area of a field ; U. 7737, literary tablet, Larsa period ; U. 7746, pictographic tablet from grave site



2. No. 7 Quiet Street, on the second period floor of which were found many tablets of the Isin-Larsa period

Gay Street, no. 5. A small and poor building. Room 2 was entirely taken up by a big tomb. The front door had been bricked up at a late period.

Quiet Street, no. 1. The stairs opened directly off the entrance lobby instead of off the courtyard. There was a second entrance from the street into room 4.

Quiet Street, no. 2. The largest house excavated. The stairs were interesting; the lowest flight was as usual very steep, and originally the upper flight had been all of wood; later a part of the lavatory was sacrificed by running across it a wall, the space behind which was filled in solid, and over the filling the first nine treads of the upper flight were laid with bricks, the rise of each step being only fifteen centimetres; the whole staircase as preserved gave a height of just over three metres. Room 4 seems to have been the 'liwan'; it was on the floor of this that there was found a sealing dated to the time of Hammurabi. Room 7 was probably a second courtyard, open to the sky and serving as a light-well for rooms 8, 9, and 10. The house was well built with burnt brick carried up unusually high (pl. XLIII, 2). Originally it included the area now represented by no. 1, New Street, which was perhaps an open yard entered from rooms 4 and 7: at a later date these doors were bricked up and a new small house (no. 1, New Street) was built here in a much poorer style with a minimum of burnt brick in its walls. Room 11, which contained a tomb, was almost completely destroyed.

Quiet Street, no. 3. There were two front doors, one opening straight into the courtyard, one into room 2, facing which was the staircase with the lavatory (room 3) below it. Room 4 had been entirely remodelled in the second phase of the building, the original dividing walls being razed and over one of them erected two square brickwork piers (pl. XLIV, 1) which presumably supported a balcony, or a roof, or both. It is noticeable that the back wall is not aligned to the rest of the house, but the line of the piers is made parallel to it instead of to the south-east wall; against this skew wall there were two blocks of brickwork corresponding to the piers, but it is possible that they are the remains of attached piers; in that case there might have been beams supporting a superstructure round three sides of the room. In the south corner of room 4 was a tomb antedating the remodelling of the house.

Quiet Street, no. 5. This also had two front doors; but rooms 6 and 7 were originally a lane between this house and no. 3; later the mouth of the lane was blocked by a wall containing the doorway, a second was built half-way down it, and a door was cut through what had been the exterior wall of the house into the courtyard. Room 4 contained a very large tomb; the block of brickwork in its north corner may have been intended as one side of a wide niche, and in that case the room would be a normal chapel. Room 5 had been the lavatory, and room 6 the staircase; later graves were dug below the floors of both. In room 4 were found many tablets, religious, mathematical, etc.

Quiet Street, no. 7. At a late period the front door and the inner door of the lobby (room 1) had been bricked up and the whole wall-face thickly coated with bitumen to make of the room a bath or bin: the whereabouts of the new front door are unknown. The house plan was quite irregular. Room 5 was the chapel containing the children's graves, the little room 6 was the archive-room with a brick shelf along two of its sides; tablets were found on the shelf and on the floor (pl. XLVI, 2). In the second phase of the building a new floor was laid over the remains of the chapel and room 6, and on this were found more tablets, baked by the fire which had destroyed the house (pl. XLVII, 2).

New Street, no. 1. A small irregular house, badly built; see above, no. 2, *Quiet Street* (pl. XLVIII, 1).

New Street, no. 2. Probably a shop, consisting of two rooms only, of which the first has a side entrance into no. 3. The long room behind seems to be a magazine.

New Street, no. 3. The south-east wall is the retaining-wall of a high terrace on which nos. 4 and 5 are built; this accounts for the one-sidedness of the ground-plan. Room 3, the lavatory, was particularly well preserved, with its drain complete. In room 4 is noticeable the recess in the wall into which the door folded back so as to be flush with the brickwork and so economize space. Room 5 had its walls preserved to more than the common height; the south-east and the first section of the north-east walls were of burnt brick throughout—because these were retaining walls—and stood to 2.65 m. (pl. XLV, 1), and at the north-west end of the room the walls, of burnt and crude bricks, were 2.80 m. high. It was in the doorway between rooms 5 and 6 that we found the fallen arch of burnt brick (pl. XLV, 2). Room 6 was a chapel.

New Street, no. 4. The house was too much destroyed for its plan to have any real interest.

New Street, no. 5. The south-west end of the building had been destroyed, and its limits could not be determined. The entrance was probably on the south-east side, into room 2, but the work was not carried far enough to show whether a street lay beyond this. The west corner of the courtyard (1) had been destroyed by a later drain (pl. XLIV, 2). Room 7 had a high sill to its south-west doorway, and a second door opening on to the large paved court (8) which lay at a higher level; a wooden flight of steps had run across the room from door to door so as to facilitate access to the court, the beams supporting the treads being let into the brickwork of the walls; apparently the beams had run right across the room, and over the part not taken up by the steps there had been a raised wooden floor. The court opened on to a second and larger court from which an exit gave on to *Gay Street*.

Chapel House. In the east corner of the excavated area there remained parts of four rooms belonging to a house of which the rest had completely vanished (the site lay very high, and had been denuded by water running from the mound to the hollow along the late

Temenos wall). Of these room 2 was a chapel with altar and niche; a large tomb lay below the ruined pavement of the 'nave' (pl. XLVI, 1). Between this building and no. 4 Gay Street was a large open court (Chapel House Yard) along the north-east side of which were rooms; one of these was a chapel containing a tomb and distinguished by niche and pillar.

The Chapels

The chapels to which reference has already been made were found in no. 7 Quiet Street, no. 3 New Street, in Chapel House, probably in the ruined house adjoining Chapel House Yard, and perhaps in no. 3 Gay Street: of these the first three are the best preserved and afford the best material for a general description.

The chapel was a long and narrow room lying north-east by south-west (with the exception of the doubtful case in Chapel House Yard) having one or two doors at the north-east end of its longer walls (though again the two doubtful cases are exceptions to this); the floor is paved with burnt brick, and at the south-west end this pavement is raised by a single brick course so as to form a low dais; on the dais, against the south-west wall, is an altar of solid brickwork occupying part, or the whole, of the width of the room. Two other features distinguish the chapel; one is a square pillar of brick, burnt brick below and crude brick above, rising from the altar against one of the side walls, the second is the presence of a shallow niche or niches in the wall at the south-west end of the room, either in the south-west wall itself or in one of the side walls at its south-west end; the niche apparently had to be in connexion with the altar, and the pillar was either close to or actually filled up part of the niche. In all cases but one there was a brick vaulted tomb under the (low) pavement of the main part of the room; the exception was in no. 7 Quiet Street, where all round the altar, under the (raised) floor of the dais, there were children's graves; there were 32 of these, and they were crowded together, lay one above the other, and even overflowed through the doorway into the little room alongside where the tablets were kept (pl. XLVI, 2).

One need have no hesitation in calling these rooms chapels, for not one of their distinguishing features occurs in any other room in the houses, and both the altar and the niche are invariably found in the sanctuaries of regular temples. As to the purpose of the brick pillar I can make no suggestion; there is nothing to show whether it was a true pillar rising to the roof or was cut short (the best example, that in Chapel House, was ruined away at 0.50 m. above the altar top) and served rather as a stand for objects; it may be that to call it a pillar is to beg the question,

and certainly there is nothing in Sumerian religion as we know it to suggest any such pillar worship as appears, for example, in Cretan shrines or explains the *asheroth* of Canaan: it is possible that the Semitic element in the population was responsible for the introduction of a baetylic cult concerning which the texts are silent, but the evidence is not such as to support any startling theory. But the existence of these chapels in private houses is in itself surprising enough, and the connexion with the graves, especially with the children's graves, adds to the novelty of the discovery. Though there are plenty of charms and apotropaic rites for domestic use, there is not, I think, anything in the texts pointing to domestic worship, but the chapels certainly imply something like 'family prayers', and the burials in the chapels must mean either that the dead were put under the protection of the deity who was the patron of the family, or that the commemoration of the dead, if not an actual element of ancestor worship, entered into the domestic religion.* Probably both ideas were present, but the former seems best to explain the crowded children's burials in the Quiet Street chapel; there is no question here of infant sacrifice—apart from the actual evidence of the graves, there was no Moloch in the Sumerian pantheon—and the difficulty lies rather in the number of the graves than in the presence of one or two for which the other chapels would furnish parallels. Heavy as infant mortality was in ancient Mesopotamia (in modern Iraq it reaches over 82 per cent., and though our evidence for any one period in the past is necessarily very partial it proves that the mortality was heavy), it would scarcely account for 32 children dying in a single house even in the space of a good many years—and as the house was twice remodelled in the two centuries of its existence the lifetime of the chapel was not so very long. I can only suggest that the chapel was consecrated to some goddess who was a particular patroness of little children, and that the privilege of burying in it such as died very young was extended to other members and to friends of the family who owned the house. If that be so the pathetic little bowls clustering round the altar bear witness to a side of the Sumerian religion more kindly, more in sympathy with what we call religion, than anything the texts would let us guess.

* The deification of the kings after their death and even in their lifetime might really be an extension of a belief normally held concerning every man who died. The niche may have its parallel in the 'false door' of the Egyptian tomb chamber (in the central sanctuary of the north-east temple of the Gig-Par-Ku there is a niche with double reveals which for a long time I took to be a bricked-up doorway), and if so this characteristic architectural feature may originate here as in Egypt from beliefs concerning the dead and be intimately connected with their worship.

Where the house did not possess a chapel the dead might be buried under the floor of any room indiscriminately. Sometimes we find the brick tomb, roofed with a barrel or a corbel vault, sometimes an inverted clay bath-shaped larnax (*Ant. Journ.* vol. vi, pl. lx); small children were generally buried either in a large jar or in a bowl over which a second bowl was inverted to form a lid, but two clay coffins for children were found in the form of a hutch with a square opening at one end through which the body could be pushed in, closed by a sort of clay door which fitted into a slot, and was secured by strings tied across it from two pierced knobs projecting from the rim of the coffin mouth. The brick tombs were used again and again, the pavement being taken up, the brick filling of the door removed, and the bones of the last occupant being pushed unceremoniously to one side to make room for the new comer; we have found as many as ten bodies in one tomb. The other forms of grave were individual, and several may occur in one house or under the floor of one room: the only exception to burial beneath the room floors was in the case of no. 3 Gay Street, where a number of interments took place in 'Closed Lane' after that had been walled off and turned into part of the house property.

In previous reports I have spoken of the graves as being strictly contemporary with the houses under which they lie. Dr. Andrae, whom I had the pleasure of welcoming at Ur this year, raised the interesting point whether the occupation of the house continued after the first interment within its walls: in his own excavations the predominating evidence was to the effect that as soon as a man had been buried in the house the front door was bricked up and the building stood thenceforth as a kind of funerary chapel. I had already ventured the suggestion that for sanitary reasons a house used too often as a tomb might become uninhabitable and be left empty for a period, and that this might in part explain the very great area covered by the town ruins; but between this and Dr. Andrae's view there is a wide gulf. One case at Ur supports Dr. Andrae's theory: in no. 5 Gay Street, a very small and poor house, there is only one tomb (just inside the entrance) and the front door has definitely been walled up, though whether this was the result of the interment or not there is nothing to show.¹

On the other hand it is I think possible to prove that there existed at Ur no such general rule as Dr. Andrae suggests, but

¹ The walling-up of the front door of a house for safety when the owner is leaving it for a season has always been a common practice in the East; cf. the houses of Tell el Amarna in Egypt.

that the houses continued in occupation in spite of the presence of the dead beneath the floors. The question is really one of dates.

I have already stated that the quarter was built about 2100 B.C. and was destroyed soon after 1900 B.C. Had there been no other dating evidence the time of foundation would have been quite satisfactorily fixed by the character of the brickwork, which is unmistakably that of the Isin-Larsa period, but other evidence is not lacking. In the wall of the central courtyard of no. 5 New Street there are two bricks bearing the stamp of Bur-Sin; in no. 3 Quiet Street, in a submerged (early) wall under room 4 there are two more bricks with the same stamp; in one of the brick pillars built over the same submerged wall is a stamp of Libit-Ishtar; stamps of Silli-Adad occur in the pavement of the courtyard of no. 3 Gay Street and in the pavement of the dais of Chapel House.

The stamped bricks were of course specially made for public buildings put up by the order of the king, and they are out of place in a private house. Normally they would not have been at the disposal of a private builder, and the only ways in which one can account for their presence in a private house are, either that they were part of material plundered from an old royal building so ruinous as to be used as a quarry—in which case the house must be of much later date than the stamped bricks—or that they represent surplus material left over when the royal building, for which they were made, was completed, and sold by the manufacturer or by the Government Disposals Board to the private contractor,—in which case they will be strictly contemporary with the building in which they were found. In the present instance the general character of the brickwork is that of the Isin-Larsa period; throughout that period no building erected by Silli-Adad or Libit-Ishtar could have become so ruinous that its walls could be dismantled for building material by private persons, and as those kings were great builders there was every opportunity for sales of their surplus stocks to take place; moreover, they were for the most part employed in repairing the havoc caused by the Elamite invasion to the monuments of the Third Dynasty. As old sites were being cleared for restoration the house-breakers must have had plenty of old bricks to dispose of, and amongst them would be many of Bur-Sin. All the facts agree with our houses having been built about the time of these kings, i.e. between 2102 and 1998 B.C.

The walls of the latest phases of the houses show in many instances signs of heavy burning, and as there lies above them a very considerable stratum of deposit formed chiefly of broken mud brick and, in its upper levels, of mud brick mixed with wind-

borne sand and rubbish into which the foundations of the next building period are cut, it is easy to see that the whole quarter was destroyed and deserted simultaneously. The date of destruction is accurately fixed by the discovery on the floor of room 4 in no. 2 Quiet Street of a clay label bearing the name of a man who describes himself as the servant of Hammurabi. More and more clearly as the work of excavation progresses can we see that the close of the Larsa period is marked by an orgy of looting and fire in which the whole city was involved, and this can only be referred to the recapture of Ur by the Babylonians after the revolt in the twelfth year of Samsu-Iluna. The destruction of the Gig-Par-Ku temple was dated by inscriptions to that very year; the destruction of the houses, coming after the time of Hammurabi, must have been part of the same disaster. The *floruit* of the houses is therefore between 2100 and 1900 B.C.

Now no. 4 Gay Street underwent radical changes amounting to remodelling three times in that comparatively short space of time; no. 7 Quiet Street was twice restored; and that must mean that the occupation of the houses was continuous. No. 2 Quiet Street was one of the oldest houses on the site, yet the Hammurabi label referred to above was found lying on its floor level, so that that floor was in use up to the very end of the period. In the chapel in no. 7 Quiet Street the 32 infants' burials, all belonging to the first phase of the building, must represent a considerable lapse of time between the first interment and the last, yet the clay tablets thrown down from the shelves in the next room lay directly on the pavement under which were the graves, and this must mean that not only the pavement but the tablet-room were in use, and the house therefore occupied, when the bodies were already buried round the altar. In the case of a family vault often reused, a great many years must have elapsed between the first burial and, say, the sixth, and if, as Dr. Andrae thinks, the house was regarded as a funerary chapel from the date of the first interment until a decent interval had gone by after the last, it stood empty for a long period, and such a period is wholly inconsistent with the evidence we have of continuous occupation. The graves are of course of the same general date as the houses, as is shown both by their construction and by the pottery found in both, and such accurate dating evidence as we possess in the shape of inscribed cylinder seals proves that interments took place at all times in the period. But the inscribed tablets found on the house floors prove that the houses too were occupied at dates within the period which come sufficiently close to the tomb dates to exclude any likelihood of the tomb implying the closing, even temporarily, of the house.

Lastly, in no case, except that of the small house no. 5 Gay Street already cited, is there any sign of the front door of a house having been walled up, in spite of the presence of graves beneath its floors. Where this might seem at first sight to have been the case it is only because the house-owner has substituted a new front door for an old, and in the case of no. 3 Gay Street it can be demonstrated that burials took place (in Closed Lane) shortly before and soon after the new doorways, one leading into Closed Lane, were cut. Personally, I think that the provision of chapels in some of the houses is itself an argument against Dr. Andrae's conclusion from his own work applying to Ur and to the Larsa period, for where the grave is already in a consecrated chapel built for the purpose it seems superfluous to go further and consecrate the entire house. In any case I feel justified in restating my original observation, that the dead were buried beneath the floors of the houses in which the rest of the family continued to live.

The Inscriptions

By Rev. E. BURROWS, S.J.

In the upper stratum of the residential quarter, above Quiet Street, were found good literary and grammatical tablets—a hymn to Ninurta, Sumerian-Akkadian tables of verbs, most of a large (25 cm. high) ten-columned Sumerian vocabulary (e.g. lists of birds and fishes), and so on. The many business documents (40 to 50) from the same level contain dates of late Kassite kings from Kadashman-Ellil to Marduk-apal-idinam, and so indicate the thirteenth-twelfth century as the period of the occupation of the upper houses.

Coming to the lower level of this site, in rooms 5 and 6 of no. 7 Quiet Street we found a very important collection of some forty tablets, mostly preserved in good condition by an accidental burning of the house. The contents of the little library are varied, ranging from tables of square and cubic roots to liturgical hymns. Among the latter is a first example of a hymn to the god Hani: the majority are hymns to the deified King Rim-Sin. The most valuable part of the collection is a set of ten tablets containing copies and monumental inscriptions of kings of Akkad, Ur, Isin, and Larsa. The kings represented are Naram-Sin (three important tablets), Ur-Nammu, Ibi-Sin, Ishme-Dagan, Kudur-Mabug, and Warad-Sin. Apparently much of the annalistic material embodied

in these texts will be new. The collection also includes a Larsa date-list with new features.

In room 11 of the same house, on an earlier floor level, were over 100 business documents, with a rich collection of seal-impressions; land-plans for mensuration; school exercises; several letters of Rim-Sin; and a mythological text concerning Gilgamesh and Lugal-banda. This collection has dates from Sumuilmum year 1 (c. 2056) to Samsuiluna (c. 1900 B.C.).

In house no. 5 of this street were some 30 business documents: dates of Sumuilmum and of his predecessor Abisharê.

Thus the literary activity in Quiet Street seems to begin under Abisharê of Larsa and to end with the fall of Larsa in the later part of the First Babylonian Dynasty. It was greatest, perhaps, during the Elamite regime at Larsa. The period indicated includes, of course, that commonly assigned to Terah and Abraham.

A certain number of documents found here and there on the house site are not definitely assignable to particular buildings. A few of these are older than the Larsan-Babylonian period. This miscellaneous lot includes part of another list of the Larsan year-dates, with variants to the one published by M. Thureau-Dangin, and a very interesting list of names of 15 probably foreign divinities (Elamite? from Rim-Sin's time?), nearly all of which are new.

The first trenches dug at the beginning of the second half of the season, south of the temenos, on the site 'S.M.', brought to light a dump and tablets, very numerous but mostly deliberately destroyed and often glued together in shapeless masses. They are not, however, without value. Besides school exercises, multiplication tables (the multiples up to 60 of the numbers 6, 36, 450, 750, and 1000), numerous fragments of large account-tablets and text, and hundreds of very small business notes that have mostly escaped destruction, there are many pieces of large vocabularies. The collection seems to date from the Third Dynasty of Ur.

The trial trenches dug next, before the discovery of the graves, produced little. Inside the chamber at the east corner of the Temenos Wall was the latest document found this season—Cambyzes year 2. In the area of the graves were a score of valuable archaic tablets. The writing is not strictly linear; it differs from that of Fara; it is not unlike that of Ur-Nina of Lagaš (beginning of the fourth millennium B.C.), but may be older; several signs seem to be new.

The work done south of the Ziggurat brought to light a clay cylinder with a new dedication in neo-Babylonian or Persian

style, a limestone tablet with a new dedication in the style of Kurigalzu (both fragmentary), and a perfect duck-weight (5 mna) with inscription of Dungi.

Beneath the entrances to the sanctuary and three chambers of E-nun-mah were four gate-sockets with inscription of Marduk-nadin-aḥē (c. 1116-1101), recording his restoration of 'E-ga-nun-mah'. Seemingly also, in a parenthesis, he claims to have restored the temenos (e-giš-sir-gal) as a whole. Two surprising discoveries were made under Nebuchadnezzar's pavement in the E-nun-mah. In the filling, besides various objects dating from Rimuš onwards, there was found an ivory box-lid inscribed with a Phoenician dedication to Astarte by Amat-Ba'al, daughter of Paṭ-Es (Egyptian name: P₃-dy-š, whom Isis has given) (pl. XLIX, 1). This is the first Phoenician inscription to be found in Iraq. Epigraphically it is interesting that eleven of the thirteen letters represented are of early form and correspond exactly with those of the Aramaic writing of Nērab (seventh century?), while the ṭ and y are those of the colonial Phoenician inscriptions of the fourth and following centuries. Not less important is a graffito on a piece of brick or pavement found here, which shows an alphabet intermediate between Phoenician (or rather archaic Greek) and Minaeo-Sabaeen (so-called Himyaritic). Six letters of the same (or a rather older) type occur on a clay pot brought in from elsewhere, reading perhaps 'Melisipak'. Possibly these inscriptions may be dated in the twelfth and tenth-ninth centuries: certainly they are the oldest South-Semitic inscriptions known.

Clay cones, found loose, abound at Ur. Of those brought in last season eleven have new texts or variants. A new cone-inscription of Ur-Nammu is found to be that copied on the tablet in no. 7 Quiet Street mentioned above. It is concerned with canals and water: this is now the fifth cone-inscription found at Ur in which Ur-Nammu deals with this subject: one wonders whether his name (Servant of Nammu, a water goddess) may be related as cause or effect to these operations.

The most interesting brick-inscription found last season was a new dedication by Bur-Sin of an edifice called Ki-en-nu-ga, the watch-tower or fortress. It was discovered at Diqdiqqeh. This Kiennuga will be the fort mentioned in the dedication¹ of a temple to Bur-Sin's successor, Gimil Sin, by a certain Lugal-maguri, 'Governor of the Ennuga, isag of Ur'. Another interesting brick contains an inscription of (probably) Ur-Ningirsu of Lagaš, which adds, perhaps, to the evidence of the influence of that city at Ur.

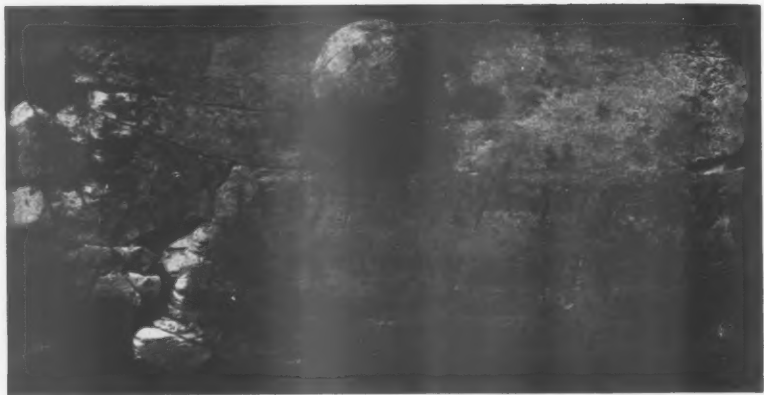
¹ Thureau-Dangin, *Sum. u. Akkad. Königsinschr.*, p. 202 top.



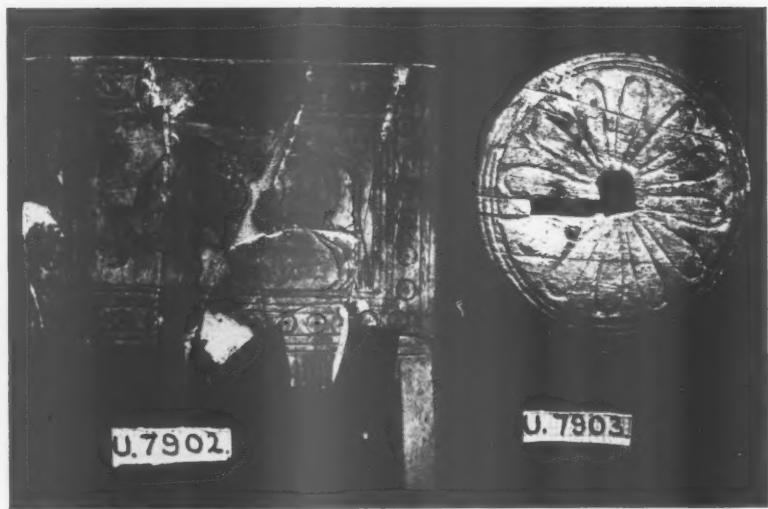
1. No. 1 New Street : general view. The house is small, of late date and poor construction, the plan modified by shape of site which was originally part of no. 2 Quiet Street : note walled-up doorway in background



2. SW. face of Ziggurat cleared down to 3rd dynasty level : along the foot runs a drain made or repaired in the Larsa period



1. Ivory box-lid with Phoenician inscription



2. Ivory toilet-instruments: comb and lid of circular pot; Phoenician work from below the paving of E-Nun-Mah

NOTES ON THE RECONSTRUCTIONS

Number 3, Gay Street (pl. XLII).

The arguments supporting the details of the reconstruction have been given in the section dealing with the excavation of the houses. The doors are shown as arched, on the evidence of no. 3 New Street, with the exception of the staircase door; here the rise of the steps through the thickness of the wall made necessary the maximum of head-room and a flat lintel seemed unavoidable. The height of rooms has been made as low as is consistent with the evidence of the standing walls. The wooden pillar on the left is shown resting on the brick found here bedded on to the pavement. The ring-stands shown acting as supports for vases were found on the pavement in these positions.

Gig-Par-Ku (pl. I, 1). Excavated in 1925-6; see *Antiquaries Journal*, vol vi, p. 366.

At the time of excavation the ground-plan seemed to show that approach from the court to the sanctuary was through three arches, but as we had at that time no material proof of the use of the arch in the Larsa period no attempt was made to draw out a restoration of the building; now the discovery of the arch in a contemporary house enables us to assume an elevation consistent with the plan. The long and narrow transverse chambers, separating the sanctuary from the court, were probably vaulted in brick, but if so the spandrels must have been filled in with earth to make a flat roof, since the drainage would otherwise have been too complicated: on the other hand, a flat ceiling supported by beams is perfectly consistent with the dimensions of the rooms. In the drawing the brick base for the stela of Hammurabi which stood in the middle of the court has been omitted in order to show the sanctuary, which it would have masked (the stela was in any case a later addition); against the back wall are other brick bases, one supporting an inscribed calcite stela of which fragments were found close by: in front of the sanctuary doorway is the altar. The statue can be seen on the high pedestal which filled up the greater part of the sanctuary; in front of it is the lower platform approached by a flight of brick steps whereon the priest stood to make oblations.

The walls are shown as mud plastered and whitewashed, simply; occasionally, as in the north-west temple of *Gig-Par-Ku*, the lower part of the wall was covered with a coating of bitumen making a dado perhaps a metre high, but nothing of the sort was found in this temple. On the analogy of modern buildings the wall is

carried up above the roof line to form a parapet broken only by gutters projecting from their embrasures. The court was brick-paved: in the chambers the brick pavement was covered with bitumen and spread with matting.

Dublal-mah (pl. I, 2). Excavated 1924-5; see *Antiquaries Journal*, vol. v, pl. XLIII, 2.

The building shown is that resulting from the reconstruction by Kuri-Galzu in about 1400 B. C., and the view is taken from the roof of the house of the temple archivist (seen in the foreground). Of the two rooms of the shrine the outer, whose width is greater than its depth, is assumed to have been vaulted; for the sanctuary proper we have suggested a dome. In support of this rather revolutionary suggestion we would adduce the ground-plan; the chamber is small and square and the walls are of a thickness so obviously disproportionate to the area enclosed as to imply (a) that the roof was to be extremely heavy, (b) that the architect was dealing with a form of construction novel to him and was not sure about his stresses. In the contemporary temple of Nin-Gal we find long and very narrow rooms, most suited for vaulting, surrounding a very small square *pronaos* with a doorway through the middle of each side; the corners take the form of enormously heavy piers which again seem inexplicable except as supports for a dome. It is true that material proof is wholly lacking in both cases, but the dome was used in neo-Babylonian times and may well have been invented long before. The arch and the vault had been familiar to the Mesopotamian builder for seven hundred years and more. The evolution of the dome from the vault of sloped brick rings is easy, the construction merely starting over a corner instead of against an end wall (cf. also a domical vault in mud brick, Mileham, *Churches in Lower Nubia*, p. 15, figure); the clumsiness of the ground-plan suggests that the age of Kuri-Galzu was that of such an evolution.

In the right middle distance of the drawing are seen the gate towers of E-Nun-Mah. The steps on the left ascend to the Ziggurat terrace, E-temen-ni-il.

E-NUN-MAH (see *Antiquaries Journal*, vol. iii, p. 319 ff.)

This temple had been excavated in our first season, 1922-3, and its plan completed, but further work on it was still necessary. In and around the sanctuary the pavements laid by Nebuchadnezzar had been found in so perfect a state of preservation that, when this was almost the only monument standing above ground, it seemed

a pity to spoil its appearance by destroying the floors, especially as a trial shaft sunk in one room showed that there was no pavement preserved at a lower level. On the other hand, our general programme is to excavate all buildings down to Third Dynasty level, and now that E-Nun-Mah has become one of the less significant of the buildings laid bare at Ur, the time had come for its further excavation. The men therefore were set to work to pull up the Nebuchadnezzar pavements of the five chambers of the sanctuary and of the corridor which ran round the original sanctuary complex.

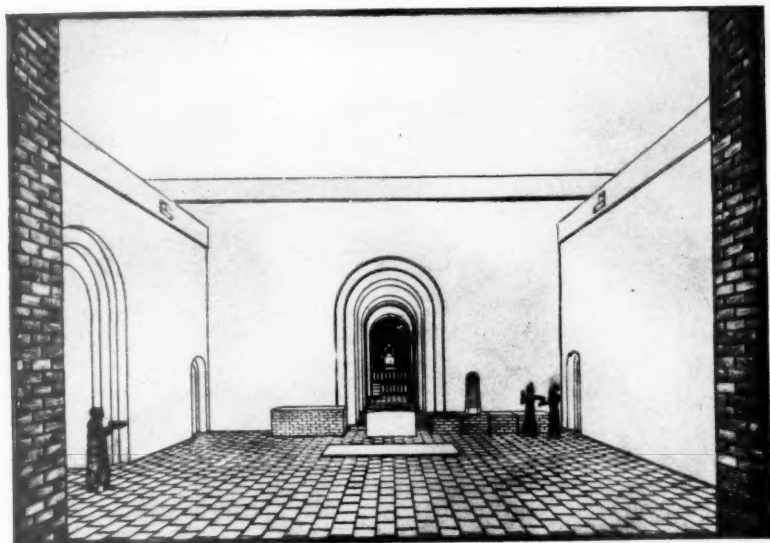
The floor level of Nebuchadnezzar's time was virtually that of the earliest period of the temple, coming almost at the base of the burnt brick walls of Bur-Sin ; no earlier floor survived, and not more than thirty centimetres down we came to the mud brick foundations. Work was carried down to the base of these, a depth of some 2.00 m. below pavement level, the earth removed being for the most part the original packing put in by the Third Dynasty builders ; except for a few more or less fragmentary clay tablets of that period, all the objects found lay immediately below the bricks of Nebuchadnezzar's floor.

By the door of the sanctuary entrance and at those of the three south-westerly chambers there were found in position door-sockets of diorite bearing identical inscriptions recording the restoration of the building by Marduk-nadin-aḫē, king of Babylon in 1116-1100 B. C. It is the first time that this king's name has been discovered at Ur, and it is particularly welcome as throwing light not only on the history of E-Nun-Mah, but also on that of the city, this being the first mention of any activity in building on the part of any king since the days of Kuri-Galzu four hundred years before. At the same time it gives point to the records, which we possess in the shape of inscribed bricks found both in the Great Courtyard and in the pavement at the foot of the Ziggurat, of repairs, if not precisely of building operations, carried out a generation later by king Ramman-apal-iddinam (1083-1061 B. C.) ; it may well be that the early struggles with the growing power of Assyria inclined the Babylonian sovereigns to court the favour of the south by showing some attention to their long-neglected temples.

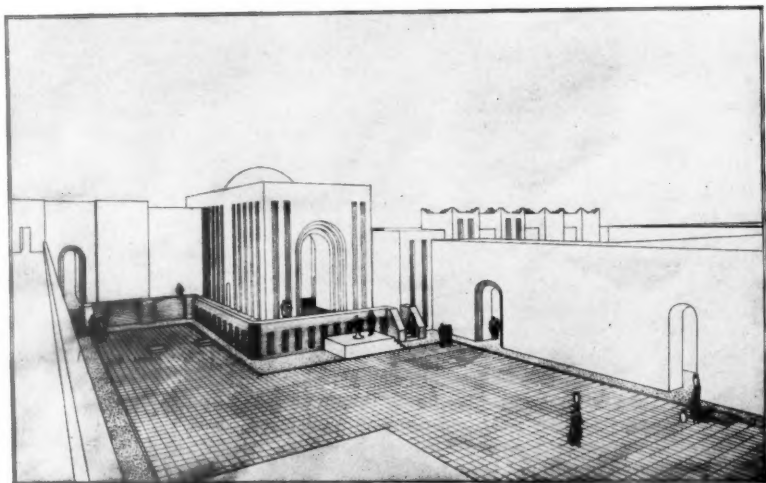
Another doubtful point is cleared up by the discovery of these door-sockets. The building in which they were found we knew, on the evidence of numerous inscriptions, to have been called E-Nun-Mah ; but in it or in its neighbourhood other inscriptions had also not infrequently occurred wherein mention was made of a building Ga-Nun-Mah, and though there was no positive reason against the identification of the two names as those of one and the same site, yet equally there was no reason for such identification,

and we had been tempted to look for Ga-Nun-Maḥ elsewhere, for instance, to the great courtyard building next door, otherwise nameless. Now Marduk-nadin-aḥē definitely calls the building (and with four door-sockets found *in situ* there can be no doubt to which building he refers) by the composite title E-Ga-Nun-Maḥ, proving that the two names are alternative, and thereby clearing up ambiguities which would otherwise have confused the history of the site.

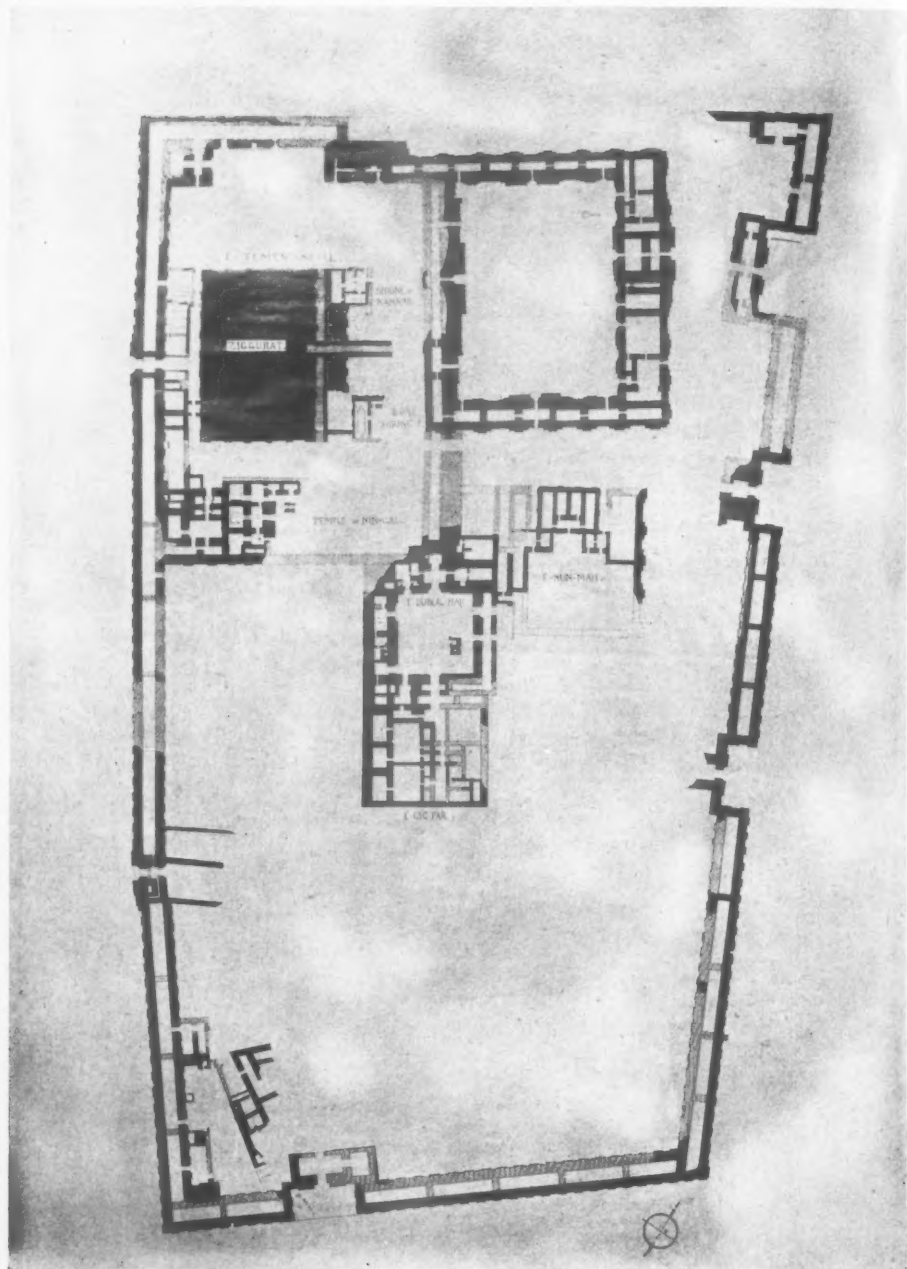
The other objects found give evidence for the custom of dedicating offerings by placing them beneath the pavement of a temple. In the south-west of the two central chambers there was a small group of very early cylinder and stamp seals, found all together; in the outer north-east chamber, in its west corner, there was found a very remarkable object, the ivory lid of a small box, probably a jewel-casket, engraved with an inscription in Phoenician recording its dedication to Astarte by a lady named Amat-Ba'al—the first example of Phoenician writing discovered in southern Mesopotamia (pl. XLIX, 1). In the room between these, the north-eastern of the two central chambers of the sanctuary, more objects came to light. Immediately below the paving slabs, but scattered over an area some two metres square, not all close together, there were articles forming a complete toilet set, all in ivory—two combs, one plain, one beautifully engraved on either side with a drawing of a bull—fine Phoenician work in the Assyrian style (pl. XLIX, 2); a paint-pot in the form of a sphinx, also of the Assyrian type; a mirror-handle in the shape of a lotus column; a plain tubular kohl-pot and a kohl-stick; the lid of a circular unguent-box decorated with a large flower rosette; and with these a second mirror-handle of white shell. Valuable as the objects in themselves are, the discovery may have a certain topographical interest. In 1922–3 we found, in the same room, between the pavement of Nebuchadnezzar and that of the Persian period (due to the restoration by Cyrus) a large collection of jewellery, brooches, hairpins, ear-rings, and necklaces of gold and semi-precious stones. Now the temple was dedicated to the two deities, Nannar and his wife Nin-Gal, and the sanctuary chambers are in duplicate; the two inner chambers are shown by their altars, etc., to have been the shrines proper: it is not unduly fanciful to identify the shrine, under the floors of which, dating from different periods, we find dedicated objects of an essentially feminine sort, as the shrine of the Moon Goddess.



1. Restoration of Gig-Par-Ku, SE. Temple, Larsa period



2. Restoration of Dublal-mah, Kuri-Galzu period



Plan of the Temenos of Ur in the neo-Babylonian period, showing the newly discovered gateway in N. end of NE. wall

THE SITE 'S M'

There was a large area within the Temenos where no excavations had yet been made, an area bounded on the north-east by the Temenos Wall, on the north-west by E-Nun-Mah, and by the Nin-Gal temple called Gig-Par-Ku, on the south-west by the dwelling-houses attached to the Nin-Gal temple in the Kassite period, and on the south-east by Dungi's palace of E-Harsag. The work done already on the confines of the site had shown that it was seriously denuded, to such an extent that little could be expected of it, but it was none the less imperative to try to fill up the gap left here in our general plan of the Temenos. Even in this modest programme we were only partially successful.

A long wall with chambers behind it was found to stretch from near the east corner of the Gig-Par-Ku in a south-easterly direction, roughly to the line of the north-west frontage of E-Harsag. It was a wall of burnt bricks resting on a mud-brick foundation, and the floor-level behind it, i. e. to the south-west, was about half a metre above the level of the open ground to the north-east, so that the building stood on a low platform. Beyond the first range of rooms the cross-walls broke away, their foundations coming above the modern surface level, and the ground farther to the south-west proved absolutely blank; at the north-east end, close to the Gig-Par-Ku, there were signs of a wall running south-west, but this also failed after about a metre, and only a drain, which must have issued through the wall, showed that it had originally continued beyond its present limits; at the south-west end the wall came to an indefinite finish with no trace of a return.

But in the season 1925-6, when the Kassite houses were excavated, there was found along their north-east limits, partly embodied in their construction, a heavy mud-brick wall of earlier date, and to the north-east of this a parallel wall of burnt bricks with cross-walls, which ran out from the latter in a north-east direction and soon dwindled to nothing. At the time these remains had no meaning, but now they could be brought into connexion with the new discoveries; the walls were parallel, they were of the same character and built of the same kind of bricks, and there could be no doubt that they were respectively the south-west and north-east enceinte walls of a complex measuring 36.00 m. from north-east to south-west and at least 40.00 m. from north-west to south-east, a building which, on the strength of the measurements of the bricks, could confidently be assigned to the Isin-Larsa period (c. 2100-2000 B.C.), the same period as the great Gig-Par-Ku complex alongside it. Very probably it was a Larsa

reconstruction of a Third Dynasty building ; some of the mud bricks in the foundations conformed to the Third Dynasty standards, and against the inner wall at the south-west end there were two terracotta drains, the packing round which contained potsherds of definitely Third Dynasty types ; but the existing walls at either extremity have all the characteristics of Larsa work.

A building so ruined could contain little of interest ; its main importance is that it serves in some degree to fill up a blank place on the plan. Only at the extreme south-west end, in a room below whose floor there were the remains of a brick tomb, did any objects occur ; there were numerous tablets of varied character and apparently of different dates, all in very bad condition, mostly broken and often intentionally defaced, mixed up with quantities of shapeless lumps of tablet clay ; it looked as if we had here a collection of old and discarded tablets which were about to be broken up and kneaded with water for the manufacture of new tablets. Just outside the south-west wall of the same room a late grave, probably of middle Kassite date, formed of two pots placed mouth to mouth, yielded a good small vase of blue, white, and brownish black glaze, and a set of carnelian and amethyst beads.

From the south-west end of the range there projected towards the north-east a building, also of Larsa type over Third Dynasty foundations, which had once extended as far to the north-east as the boundary wall of E-Ḫarsag. Of this, too, very little remained, but it would seem never to have consisted of more than a double range of quite small rooms. Originally it was separate from the large building described above, but an addition made to it in the shape of a single room built against its west corner had almost, if not quite, joined it up with the latter. Here, too, the paved floors of the interior lay at a higher level than the ground outside to the north-east, so that the building stood on a low platform. The ground in front must have been an open space, bounded by the north-east end of the Gig-Par-Ku, by the long frontage of the ruined Larsa building, and on the south-east by the building now under discussion and by the north-west front of E-Ḫarsag ; how far this rather low-lying court extended to the north-east we have no concrete evidence for judging, but it may well have stretched as far as the (late) Temenos Wall in the neighbourhood of the 'Cyrus' Gate. For the general scheme of the Sacred Area these sadly ruined buildings are not without their importance.

Against the back (south-east) wall of the building, outside it, there were found very many small business tablets dated in the reign of Bur-Sin (2224-2213 B.C.). Further to the south-east we found a heavy platform floor of beaten mud on which were scanty remains

of small rooms whose walls were built, not with bricks, but with *terre pisée*; in spite of their high level—they lay only just below the modern surface, here terribly denuded by the water draining from the 'Tomb Mound'—they appeared to be prehistoric, and linked up with the system of early mud terraces which we had traced (in the 1925-6 season) along the foot of the Tomb Mound. In the light soil, which barely covered them, were found two fragments of sculpture—a ram's head of diorite, probably from the top of a ceremonial staff, similar to one found in the Gig-Par-Ku, good work of about the Third Dynasty, and a couchant lion in white calcite, socketed above to serve as a base for a small statue, a piece which, in spite of its damaged condition, we can on grounds of style assign to the Sargonid period, *cir.* 2800-2600 B.C.

THE TEMENOS WALL AND THE TEMPLE OF NANNAR

In the course of our first season at Ur we traced out the great mud-brick wall which Nebuchadnezzar built round the Sacred Area, but the work then done aimed only at getting clear the main topographical lines of the site; it was not exhaustive and not complete—in some parts we failed altogether to find the wall, and seldom did we do more than trace it by means of a shallow trench which made no pretence of going down to the foundations. Since then, as the excavation of other sites has brought us up against the limits of the Temenos, we have been able to correct and add to our first tentative plan; in 1924-5 we cleared the inside of the west corner with its mud-brick angle-tower, in 1925-6 we found the Nebuchadnezzar gateway in the south-west wall and followed the wall's inner face from this gateway to the south corner of the enclosure. This season we have cleared the inner face of the east corner and have solved certain difficulties connected with the south-east gateway, but the most important part of the work done on the Temenos Wall was in the north corner.

In 1922-3 we traced the outline of the wall angle along its external face and followed it for some 45.00 metres along the north-west side to where it broke away and was lost in a maze of wall remains obviously of another date; along the north-east side we followed it for 42.00 metres and then lost it, nor did we recover the line for a space of 68.00 metres, and even then the wall was found denuded almost to its foundations. In view of this denudation I supposed that where the wall was missing it had been completely erased by the water-course which had gone far to

destroy the next section, and therefore I put on the plan a dotted line conjecturing a straight course for the wall from the north angle to the Bur-Sin Gate. This meant that between the suggested wall line and the north-east face of the great courtyard building which we traced in 1923-4 there was a considerable area of unexplored ground inside the Temenos, and to complete the Temenos plan it was necessary to excavate here. The result of our work was to connect the north-west wall of the Temenos and to lay bare a new gateway where before I had conjectured a straight line of wall (pl. LI).

The actual corner of the Temenos was remarkably well preserved, because, in order to secure strength at this important point, the foundations had been carried down to an unusual depth, but a very short way along the sides these were stepped up and proportionally little of the brickwork survived; indeed, on the north-west side it was for a space entirely ruined, and we were fortunate to pick it up again later and thus to prove that the Temenos Wall proper abutted on the corner of the great courtyard building (as restored by Nebuchadnezzar), the north-west wall of which was incorporated in the scheme of defence and counted as part of the Temenos Wall, which in character it closely resembled, being like it a heavy double wall with intramural chambers.

The new gateway in the north-east side was the largest of all the Temenos gates and lay back in the middle of an unusually wide and deep recess; in plan it most nearly resembled the south-east gate. The door-sockets, found in position, were uninscribed, nor were there any inscribed bricks in the much ruined building or any objects of interest—indeed, the only object found in the whole course of the work in this quarter was a lion's head moulded in clay, a fine piece of neo-Babylonian date, small in scale, but of a truly monumental style.

The importance of the discovery of the gate was not merely that it completed the plan of the Temenos Wall, itself a desirable result, but that it threw an entirely new light on the great courtyard. Behind the new gateway, separated from it by an open space, lies the entrance to the courtyard; for some reason or another Nebuchadnezzar did not build his Temenos Wall parallel to the existing wall of the courtyard, and therefore the two gates could not be in the same line, but the Temenos Gateway is so arranged that, while it is at a different angle from that of the courtyard, its axial line points directly to the centre of the latter. If then the biggest of all the Temenos gates is so built as to lead into the courtyard which is the largest building inside the Temenos, the courtyard must possess some special significance.

Now the courtyard building (see my report for 1923-4, *Antiquaries Journal*, vol. v, p. 4) is an ancient foundation, its existing form being due to King Kuri-Galzu (1400 B.C.), while below this are the remains of earlier constructions apparently of much the same character. In Kuri-Galzu's time the floor-level was nearly two and a half metres below the pavement of the Ziggurat terrace (E-temen-ni-il), for which its outer south-west wall acted as a retaining wall; this wall was continuous, and in the range of chambers along it we failed to find any trace of steps or other means whereby the difference in level could have been bridged and communication established between the courtyard and the terrace; we were driven to conclude that in the early period at least there was no such connexion.

But this was not the case in Nebuchadnezzar's reconstruction of the courtyard building. Its ground-plan remained unchanged, but its floor-level was raised, as was proved by a few patches of the brick pavement preserved *in situ* as well as by the height of the door-sockets, so as to bring it flush with the Ziggurat terrace. On this terrace, in the angle between the central staircase and the north-east flight, he put up a building, now much ruined, of which enough remains to show that it is of the conventional type of neo-Babylonian sanctuary; but it is a sanctuary without the usual forecourts, for which the terrace affords no commensurate space. Now the entrance of this sanctuary is in exact alignment with the door of the main chamber in the south-west range of the (old) courtyard, and this again almost faces the great entrance in the north-east side of the court. As I have said, there was in the old building no access from this chamber to the terrace, but given the change of level such would have been possible; it is true that there is no material evidence for it, the back wall of the chamber being ruined down below the level of the terrace pavement, i. e. below the level of the threshold of the neo-Babylonian door, if such existed; but the plan is almost conclusive evidence in itself. Imagining the door to have been here, we have a neo-Babylonian temple of normal design; the sanctuary is there with its wide double doorway, the inner court has disappeared, owing to the destruction of the terrace edge, and with it the connexion between the sanctuary and the main part of the building, but to restore this it is necessary only to prolong the broken side walls; the great courtyard becomes the outer court of the temple. This great temple, built under the shadow of the Ziggurat and approached through the largest of the Temenos gates, which was specially constructed to lead to it, can only be the neo-Babylonian Temple of Nannar, the principal shrine of the Sacred Area. It is noteworthy

that for the position of the temple against the face of the Ziggurat there is a parallel at Kish, where Nebuchadnezzar put his great temple immediately in front of a very early Sumerian ziggurat, the terrace edge of which was actually cut away to make room for the foundations of the back wall of the new building.¹ At Babylon too, though there the plan is more widely spaced out, the relation between the Marduk temple and the ziggurat is much the same. There can be no doubt that this season's discovery of the Temenos Gateway has made possible the identification of the chief building within the Temenos, and has thus virtually completed our plan of the Sacred Area in the Late Babylonian period.

THE NIG-GA-RA-NA OF SIN-IDINNAM

By M. E. L. MALLOWAN

In the course of the season 1926-7 excavations were carried out on a mound lying roughly one mile to the north-east of the Temenos Wall of Ur. One end of a heavily buttressed building of burnt brick, the corners orientated to the cardinal points of the compass, was discovered close under the surface, fig. 1. The building belonged to one period only, and contained pavement bricks impressed with the stamp of Sin-idinnam who was king of Larsa and Ur in 201 B.C.

Details:

All that remained was the north-west end of the building. On the south-east side the ground level was very much lower and all traces of walls had been obliterated. The north-west wall forty three metres long was found intact; six buttresses each having three reveals on either side projected from it, and at each corner of the building there were three heavy reveals. The north-east and south-west walls also contained two buttresses similar in size and shape to those in the north-west wall, spaced likewise three metres apart: beyond the second buttress each wall came to an end and formed a jamb for a gateway two metres deep, fourteen metres distant from the corner of the building. In neither case could the opposite jamb of the gateway be found, although traces of the mud brick core and of the fallen burnt brick face were found beneath the surface in both entrances. Trial trenches were dug on the south-east side of the building in the hopes of finding the continuation of the north-east and south-west walls, but

¹ It seems to me perfectly obvious that this cutting away was not a work of destruction but that the old ziggurat (probably restored by Nebuchadnezzar, though no trace of his work on it remains) was incorporated in the temple plan; the terrace of the ziggurat stands some metres above the temple floor, and the ziggurat itself is even to-day preserved to a considerable height; it is inconceivable that the new temple should have been backed against a mound which would have dwarfed it if that mound was merely a shapeless and discarded ruin.

the ground level was so low in this direction that no traces of crude or of burnt brick could be found beyond the one remaining door jamb of each gate.

The interior of the building consisted of a hall twenty metres in length, flanked on either side by symmetrical chambers approximately four metres square with entrances to the hall. The walls on the hall side of the flanking chambers A and B were like the external walls of the building, very heavy—over two metres thick—but differed from

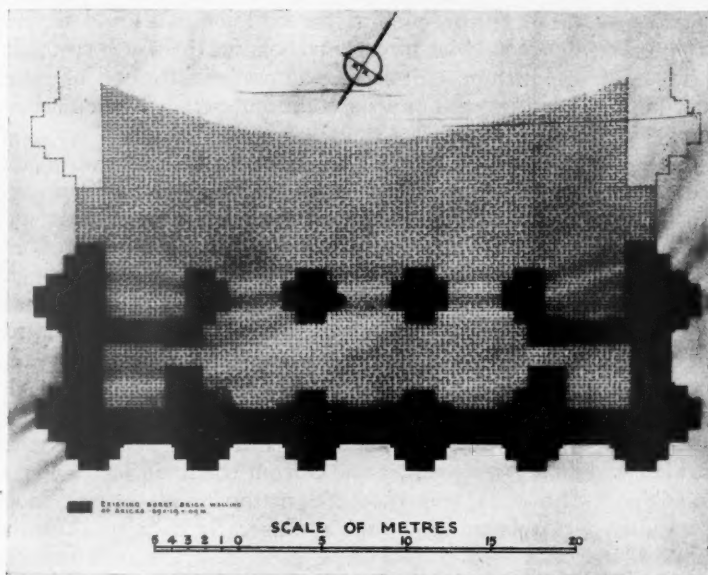


FIG. 1. The Nig-ga-ra-na of Sin-idinnam: plan.

the others in having a mixed mud and burnt brick face: actually, the inner face of the north-east wall of chamber B was built alternately of two courses of mud and two courses of burnt brick. All the other walls of the building had the burnt brick face and mud brick core typical of walls of the Larsa period. A curious feature of chambers A and B was a ruined square platform of burnt brick. The platforms were built against the north corner of chamber B and the west corner of chamber A; each was one metre in width and six courses below pavement level. Probably they were intended to strengthen the foundations. At all events they are yet another indication of the perfect symmetry of the building. No foundation deposits were discovered here or beneath any of the corners of the building.

On the south-east side of chambers A and B there were the remains of two more chambers C and D. These two chambers were open to the south-east, and had a recess in the middle of the north-west wall

four metres long and twenty centimetres deep. The north-east wall of chamber C and the south-west wall of chamber D had reveals on the outer face corresponding to the reveals of two heavy piers in the shape of a Greek cross aligned between them: they formed the south-west wall of the hall, broken by three wide entrances of which the piers and half-piers were the jambs. On the inner face of the north-west wall of the hall were buttresses corresponding exactly with those on its outer face, and the two middle buttresses corresponded exactly with the two 'Greek cross' piers.

A glance at the ground-plan of the building, with its long and narrow hall approached by three entrances on the south-east side, shows clearly that the extant remains must have formed one end of a building with a great central court entered by doorways on the north-east and south-west sides.

The wall foundations of the hall at the north-east end of the building run from six to eight courses below pavement level, and are supported by double footings projecting from the recesses and running in a line below the furthest projections of the buttresses. This implies that the walls were intended to support either an abnormally heavy roof or one of considerable height. The piers in the shape of a Greek cross afford more definite evidence, for they were obviously intended to support an arch or a vault. The supposition that the building was vaulted would account not only for the thickness of the outer walls and the solidity of the buttresses, but also for the abnormally thick partition walls that divide the flanking chambers A and B from the main hall.

The question then arises of the method and disposition of the vaulting. It is unlikely that at this early date any but the simplest methods would have been used, and the only type of vaulting which we know, from the contemporary tombs, to have been employed is that with sloped brick rings whereby the weight of the roof is distributed between the two side walls and the end wall against which the rings are leaned. It is obvious that the two 'Greek cross' piers and the corresponding half-piers supported three arches; the resultant weakness of this south-east wall of the hall is an argument against the hall having been roofed with a single longitudinal vault running north-east by south-west; the weight would have been too great. A stronger argument against this (which otherwise would have seemed the most natural way of roofing) is given by the reveals on the inside of the piers which, with the corresponding reveals on the north-west wall, certainly imply arches across the hall dividing it up into three compartments. If the spandrels of these arches were built up solid to the level of the crown, each compartment could have been roofed with a barrel-vault whose rings would lean against the strong north-west

wall; it is true that in this case also the arches would have to stand a heavy weight, but it would be for a comparatively short span. The objection that a vault coming over arches would result in a disproportionate height for the building is equally valid against the theory of a single long vault.

We have considered the vaulting in the hall itself and must now turn our attention to the two flanking chambers A and B. Had all the walls been equally heavy these two square chambers might have been supposed to have been covered by a dome, but there is no evidence for domical construction at so early a period, and in any case the relative thinness of the south-east walls makes this impossible. Actually, the south-east wall of each chamber is thinner than any other of the walls of the building; evidently, then, the thrust of the roof was less intense against that side, and we may presume that the vaulting lay across the chamber, the first rings leaning against the heavy north-west wall. In other words the vault of the flanking chambers lay in the same direction as that of the main hall itself, and is further evidence in favour of the method suggested.

The reveals on the outer face of the 'Greek cross' piers might suggest that the vaulting was continued to the south-east. The difference of ground-level in this direction has destroyed all material evidence, but we may safely assume that this was not the case, for, taking the position and width of the gateways and assuming a general symmetry of plan, the width of ground to be spanned would have been far too large. It seems probable that to the south-east of the main hall there was a great unroofed court, and that the reveals were simply carried round the arches of the doorways.

Thus the extant remains consisted originally of a long vaulted hall with three arched openings giving on to the central court, and a square vaulted chamber at either end, undoubtedly entered by an arched doorway.

It could, of course, be argued that the whole building was covered by a flat roof supported by beams resting on the brickwork reveals. But we do know that already the Sumerian architect was employing arches and vaults, and with a ground-plan which so inevitably suggests such architectural features we must needs assume that they were used, especially in the case of a royal building whereon the builders would exercise their craft to the full. The only assumption made in our restoration is that they were capable of building a four-metre vault, whereas in the tombs (the only place where the evidence is preserved) we find no more than the two-metre span required for such purposes. The breaking up of the long hall into four-metre wide compartments may be

significant ; the modern Egyptian peasant builder finds it difficult to build a vault of more than four and a half metres' span without centering, and the early Sumerian may have similarly distrusted his skill.

Close to the inner walls in several places were found a number of fallen bricks decorated by half circles in relief on one vertical face. Of these there were half bricks as well as whole bricks ; the half bricks had half circles in relief on two adjacent vertical faces, the whole bricks only upon one face. All these bricks had evidently fallen from the upper portion of the wall, and most probably once formed a decorative coping to it. The vault may have begun immediately above. The half bricks with two decorated faces must have been intended for the corners. Bricks of this type had been found before at Ur and can now with certainty be attributed to Sin-idinnam.

Traces of the burnt-brick pavement were found in more than one place. In the hall itself it appears always to have been at the same level, but the threshold of the flanking chambers may have been raised. The evidence on this point is doubtful as the pavement inside the flanking chambers had entirely disappeared ; only a few burnt bricks were found at a higher level than the hall pavement, in what appeared to be the threshold of the chambers. Most of the bricks in the pavement contained the double crescent moon stamp on one horizontal face. Two of these bricks had in addition the stamp of Sin-idinnam in an eighteen column inscription which ran as follows :

Sin-idinnam
the mighty man
caretaker of Ur,
King of Larsa.
The king also, the enclosures of Ur
and of Eridu
has restored in place.
Ga-nun-mah
from ancient days
the preceding king
had not restored inside,
on the command of Nannar
the great king
Esh-gal-mah the splendour of which
for all the peoples is unrivalled
for the life of my father,
and for my life
I built.

The size and colour of the bricks in this building are very consistent, and we may safely attribute both the bricks with the double crescent moon stamp and those with the half circles in relief to Sin-idinnam. The text of the inscribed brick gives us a clue to the purpose of the building. Sin-idinnam says that he built it for the life of his father and for his own, so that it seems very probable that the building was originally a mortuary chapel erected in honour of Nur-Adad, the father of the founder. On the other hand, it may be argued that the building does not resemble a temple in plan. The long hall with the flanking chambers seems to be more in the nature of a palace, and there were traces neither of an altar nor of burials. The only objects found were an inscribed black steatite cylinder seal showing a presentation scene before Shamash, a Larsa potsherd, a haematite weight, and a few paste beads all loose in the sub-surface soil. But the word Nig-ga-ra-na which occurs in the fourteenth line of the inscribed bricks may help towards identification. According to Father Burrows it could be taken to mean 'his treasury' or alternatively 'House of offerings'. Accepting the former translation we might suppose that the building was a depot for the collection of tribute, or a store house; but the evidence for its identification with a mortuary chapel is far stronger. Sin-idinnam builds a chapel for the life of his father, and refers to it as the House of Offerings, and though the ground plan is not suggestive of a temple certain architectural features suggest the contrary. Thus the shallow reveals on the inner face of the north-west wall are typical of shrine rooms, and brick vaulting is in keeping with a mortuary chapel, seeing that at this period the dead were sometimes buried in barrel-vaulted tombs.

Lastly, the building adjoins the great Third Dynasty cemetery of Ur, and Sid-idinnam, in looking round for a site upon which to build in memory of his father, perhaps turned necessity to good account when he forsook the already crowded Temenos area for the sacrosanct burial grounds on the outskirts of the city.

We know from a venerable Assyrian tradition contained in the records of Ashur-bani-pal that there existed in Mesopotamia a form of burial at which there was a last communion between the living and the dead. It was in this building perhaps that the relatives of the departed may have assembled to pray before carrying out the body to the burial ground beyond.

DISCUSSION

Dr. HALL had not heard a lecture of such interest for some time, and Mr. Woolley had communicated something quite new with regard to early civilization. As he had himself, with Mr. Campbell Thompson,

turned the first sod of that excavation, he was glad to be the first to offer congratulations on the successes of the past season. The most important point was that even about 3300 B.C. (he thought that Mr. Woolley's date, 3500, was a trifle too early), Babylonia had a civilization incontestably more developed than that of contemporary Egypt. One of the finds, not shown on the screen but shortly to be on view, was a gold axe-head of the usual Babylonian socket-type, far in advance of anything in Egypt or elsewhere at that period; and the inference from this superiority of metal-working was that Babylon was also ahead of Egypt in other respects. Egyptian culture seems to have sprung into being as the result of the invasion of a more robust stock from the north, which imposed itself on the weaker Nilotic population; and it looked as if the new element that came from Syria or western Asia early in the fourth millennium was akin to the Sumerians of the culture illustrated on the screen. The claim that Babylon was older than Egypt was likely to produce a lively debate elsewhere; and though the Keeper of both the Egyptian and the Assyrian Antiquities might be expected to remain neutral, he confessed that his own mind inclined to regard Babylon as the older focus of culture. The knowledge of metal, then, did not start from Egypt, but from the mountains of eastern Anatolia and Armenia. The amount of copper available in Sinai had been greatly over-estimated. Without depreciating the value and interest of the gold finds, he prized more highly the stele-fragment with the representation of a chariot, as it was the oldest picture of the wheel. It was of three battens clumsily knocked together, but it was a wheel, and that Sumerian invention was not known till 1,000 or more years later in Egypt, where the sledge was the only means of carrying a vehicle till the time of the Hyksos. Here again we saw an intelligence at work higher in practical matters than that of Egypt, and in the new volume describing the discoveries of Mr. Woolley and himself at al-'Ubaid, which was shortly to appear, the question of Sumerian and pre-dynastic Egyptian cranial capacity was treated by Sir Arthur Keith, the distinguished craniologist, who had come to the conclusion that the Sumerian brain-pan was far more capacious than that of the pre-dynastic Nilote. In fact the Egyptian did not develop brains until the pre-dynastic stock had become mixed with the 'dynastic' newcomers, who may have been related to the Sumerians.

Mr. HOWARD CARTER felt appropriately humble as an Egyptologist, but had concentrated on the store chamber of Tutankhamen's tomb for the past seven months and had a good deal to show on the other side of the account, the contents of the chamber being of special interest in connexion with Egyptian art and religion. Details could not yet be made public, but a stole made of five or six thousand beads might be mentioned; it had the ankh-sign and was worn round the neck of the king. There was a prospect of finding other vestments of the kind in the chests still to be examined.

The PRESIDENT conveyed the thanks and congratulations of the Society to Mr. Woolley, and was glad to find that last season's work

had thrown light on the secular life of the dwellers in Ur. If it was their custom to bury the dead under the floor of small rooms in the houses, he no longer wondered at the high rate of mortality indicated by the group of thirty children in what might have been a hospital. He had been impressed with the comfort and solidity of the houses, and would like to see the economic life of the period restored by a study of the fauna: the birds, deer, and oxen seemed abundant and of good quality, and indicated a long period of bucolic education, more probably to the south than to the north of the middle plains of Asia. Dr. Hall had shown a decided preference for Babylon as the senior civilization, but Ur could not claim the invention of the wheel: he had himself seen a similar specimen in southern Manchuria. The gold dagger was as interesting as the iron specimen found last year in Egypt; and it was sad that just at the moment of that great discovery Mr. Woolley should have had to suspend operations for lack of financial support. The Society should set an example by subscribing liberally to archaeological enterprises, especially at home.

London Shipbuilding, A.D. 1295

By CHARLES JOHNSON, M.A., F.S.A.

[Read 24th February 1927]

IN the course of last year I was concerned, together with Mr. R. J. Whitwell, in publishing in *Archaeologia Aeliana* a particularly detailed account of the construction of a galley at Newcastle-upon-Tyne in 1295.¹ The building of this vessel was part of an extensive naval programme² due to the war with France begun in the previous year. Although I was able to trace the accounts of many of the vessels built on this occasion, I failed to find those of the two galleys which the City of London was directed to furnish. Quite recently, I came upon the full particulars of the building of the second of these among the 'Sheriffs' Administrative Accounts' at the Public Record Office, which are a subdivision of the class of 'Accounts, etc.', formed from the ancient miscellanea of the King's Remembrancer of the Exchequer. With this detailed account I found a summary of expenses prepared from it, and a similar summary of the expenses of some repairs done at the same time and place to two barges.³ In the similar subdivision entitled 'Works' was a like summary of the expenses of construction of the first galley.⁴ The accounts which I had previously found had been classified as 'Army and Navy', but the circumstances that in London the sheriffs were responsible for the expenses had led to these accounts being separated from those of the other vessels.

On referring to the account for London and Middlesex rendered by the sheriffs on the close of their year of office and enrolled on the Pipe Roll of 23 Edward I,⁵ I found annexed to it the complete account for all these works which forms the subject of this communication. It shows that the total expense was £713 1s. 6d., of which £360 3s. 10½d. was defrayed by the Treasury, while the balance was provided by the city out of the payments due from it to the king.

The first step was to provide a yard where the ships could be built. A piece of land near the Tower was enclosed with a palisade of 120 wooden posts at 3d. each, with palings between con-

¹ *Arch. Ael.*, 4th Ser., ii, 142-96.

² M. Oppenheim, *History of the Administration of the Navy*.

³ P.R.O., *Accounts, etc.* (Exchequer) [E. 101], 571/1-3.

⁴ *Ibid.*, 501/23.

⁵ P.R.O., Pipe Roll (Exch. L.T.R.), 23 Edward I [no. 140], roll 19 d.

sisting of the staves of thirty-three empty barrels bought at 10*d.* each. A wooden or more probably a wattle and daub hut, thatched with reeds, was built in the enclosure to shelter the workmen and house the stores. The palisade cost £4 7*s.* 9*d.*, and the hut £5 3*s.* 3½*d.*, the thatch being done by contract for 4*s.* 6*d.*

The timber for the two galleys was partly bought, partly felled in the woods of Ham and Wanstead in Essex, and of Addington in Surrey. Some of it was carted from Southwark Bar to the Bridge House and brought thence by boat to the Tower. Some was brought up the Thames from Greenwich in a 'shout', and some in the same way down the Lea from Leyton.

The second galley seems to have been larger than the first, and of it we have the fullest details. It took eighteen weeks to build, and employed about forty shipwrights for the greater part of the time. In the first week there were only twenty-five, and the numbers dropped below thirty during the last month, when there was less work for the comparatively unskilled men, who were probably employed as 'holders-up'.

There were few holidays: Lady Day, Good Friday, Monday to Wednesday after Easter, St. Mark's day, the Invention of the Cross, Ascension day, Monday to Wednesday (in some cases Thursday) in Whit week. In the weeks in which there were holidays, Saturday was only paid for as a half-day. The master shipwright, Arnold of Bayonne, was paid a standing wage of 9*d.* a day, including Sundays and holidays. His two assistants, William Turk and Robert of Winchelsea, were paid at the same rate but only for a six-day week. The rest were only paid for the days on which they worked.

It is not very easy to estimate the size of either of the galleys. The first built, which seems to have been the smaller, had 140 oars. If we assume that the galley was a bireme, which seems probable, and that two rowers sat on the same thwart on each side of the boat, we must allow for thirty-five thwarts. The distance from the edge of each thwart to the corresponding edge of the next in front may be taken at about 3 ft. 6 in., though it may have an inch or two less. To the length of about 120 ft. thus obtained we must add about 10 ft. at each end for the stem and stern, making a length of at least 140 ft. over all. We do not know how many oars the second galley had, but the mast was supported by two pairs of backstays, the longer pair of 23 fathoms, the shorter of 20. We have, however, the quantities of yarn required for making all the ropes, and it is possible that a practical seaman might be able to draw some conclusions from these figures.⁶ A detailed

⁶ See below, p. 434.

comparison of the cost of the two vessels is difficult, because the expenses appear to be somewhat differently distributed in the two accounts. But, as the first galley was built in twelve weeks and cost £225, while the second took eighteen weeks and cost £355, we may probably assume that their lengths were approximately in the proportion of six to seven, since the proportion of the costs is nearly the same as that of their cubes. We thus obtain an approximate length over all for the second galley of 140 ft., which is consistent with the length given for the backstays.

The first galley must have been put in hand immediately on receipt of the king's writ, about the end of November 1294, and was finished, or nearly finished, by 21st February 1295, when the second galley began to be built. Although we have a detailed account of the construction of this vessel, it is not easy to gather very much about its plan. We hear of large balks for the keel, and of smaller pieces of timber called wrangs (i.e. floor-timbers), fut-tocks, and 'schebbemes', all apparently of much the same size costing 6d. each. There is no information about the stem or the sternpost, nor are we told whether the rudder was attached to the sternpost, or was 'free' and worked from the side. The example of the Newcastle galley, which had a fixed rudder and apparently 'free' rudders as well, makes it likely that the London galleys had fixed rudders, whether or not they had steering-oars as well.

The mast and yard were clearly very large, as the cart which brought the step for the mast from Addington to Southwark was drawn by six horses. There seems to have been only one sail, requiring 900 ells of canvas by the long hundred of six score, and therefore very unwieldy. The first galley had originally a sail of only 300 ells, but this was found to be too small, and had to be enlarged.

The mast of the second galley was sustained by two forestays, four backstays, and sixteen 'headropes' or shrouds. The yard was supported by 'trusses' and 'upties'. There were two 'sheets' and two smaller yardropes. The sail was hauled flat by means of a bowline attached to the bowsprit. In the account, the ropes properly belonging to the sail are distinguished from the rest of the rigging, but their names do not correspond with those now used. Thus the sail has 'Lorwelines, Twistlines, Thurtlines, or Thurghlines, Hanekes, Loftropes, Sheets, Stekieres, and Wyniropes', while the standing and running rigging is stated to consist of 'Headropes, Sheets, Headwyles, Yardropes, Stays, Backstays, Hawsers, etc.' *Wynies* are explained in one passage as being ties for fastening the sail, presumably to the yard.

The rowers were protected by a tilt or awning, for which sail-

cloth was purchased. The painting of these two galleys was much less elaborate than that of the Newcastle galley, since a coat of red paint seems to have been sufficient. Among the minor expenses are included banners and streamers, kettles and brazen pots, scoops for baling, bowls, dishes, and plates for the crews, and barrels for water or for holding arms.

Of the services of these galleys I have as yet found no record beyond the evidence of the account printed below that the first galley met with a storm, sprang a leak, and had to put back to London for repairs. Nor do I know what was their ultimate fate.¹

Pipe Roll no. 140 (23 Edw. I), roll 19 d.

RESIDUUM LONDONIARUM

Compotus Henrici Box et Ricardi de Gloucestre vicecomitum Londoniarum de misis et expensis factis in duabus galiis quarum una de sepcies viginti remis et altera de et duabus bargeis pro eisdem de novo factis pro defensione regni et securitate maris contra inimicos regis et regni per breve regis et per preceptum W. Bathoniensis et Wellensis episcopi thesaurarii regis ex parte ipsius regis anno xxiii^o per visum et testimonium Radulfi de Sandwico constabularii Turris Londoniarum ad hoc assignati per idem breve.

Iidem reddunt compotum de .ccc.liiii.li. iii.s. x.d. ob. receptis de Thesauro regis per manus thesaurarii et camerariorum per diversas vices sicut apparet per rotulos de Recepta regis de terminis Pasche et sancti Michaelis anno .xxiii^o. Et de .vi.li. receptis de eisdem per manus Willelmi Toly magistri unius galie super garnesturis ejusdem galie faciendis, sicut continetur ibidem.

Summa .ccc.lx.li. iii.s. x.d. ob.

In thesauro nichil. Et magistro Willelmo Toly magistro prime galie super garnesturis ejusdem galie faciendis .vi.li. De quibus idem magister .W. respondet infra. Et in vii^{xx}. peciis maeremii emptis pro uno palicio faciendo circa quamdam placeam juxta Turrim Londoniarum pro predictis galiis et bargeis infra securius faciendis .xxxiii. tonellis vacuis pro palicio predicto emptis a diversis .m^l.m^l.d. et di. clavorum pro eodem, et stipendiis sex carpentariorum dictum palicium operancium per .x. dies .iiii.li. vii.s. ix.d. sicut continetur in rotulo de particulis quem iidem Henricus et Ricardus liberaverunt in Thesauro. Et in .vi^{xx}. peciis maeremii emptis a diversis pro una domo facienda infra palicium predictum pro operariis et pro maeremio, bordis, clavis, pice, et aliis minutis necessariis custodiendis .m^l.m^l. latharum, vii. millibus .dccc et di. clavorum emptis pro predicta domo, seruris, gumfis, vertivellis, et aliis minutis necessariis emptis pro eadem domo .dcccc. arundinibus emptis pro eadem domo cohoperienda, uno cohoptore predictam domum cohoperiente, et in stipendiis .xxvi. carpentariorum

¹ I am indebted to Mr. R. C. Anderson for some valuable corrections.

dictam domum operancium per x. dies .ciii.s. iii.d. ob. sicut continetur in rotulo de particulis quem iidem vicecomites liberaverunt in Thesauro.

Prima Galia.

Et in dcc .lxxix. peciis maeremii emptis a diversis pro prima galia facienda et wuelinges in grosso emptis pro eodem .xxv.li. xiiii.d. sicut continetur ibidem. Et in .m'.m'.c.iiii^{xx}. xix. bordis emptis a diversis pro eadem galia .liiii.li. xiii.s. vi.d. ob. sicut continetur ibidem. Et in .m'.m'.m'. c. et di. ferri et .viii. garbis ferri quod dicitur Osemund emptis per diversas vices pro eadem galia, et stipendiis fabrorum dictum ferrum operancium .x.li. iii.s. ii.d. sicut continetur ibidem. Et in quinque millibus d. et di. magnorum clavorum cum rivettis .m'.m'.m'.m'. clavorum minorum cum rivettis .m'.ccc. clavorum qui dicuntur majores Spikingges .x. millibus c. et di. minorum spikingges .m'.m'.m'.m'. clavorum qui dicuntur Dorenail .m'.d. clavorum qui dicuntur Tingelnail, et .ccc. et di. clavorum qui dicuntur Semnail emptis pro eadem galia a diversis per diversas vices .xii.li. xix.s. iii.d. ob. sicut continetur ibidem. Et in .xiiii. barillis picis emptis a diversis pro eadem galia .liiii.li. iii.s. sicut continetur ibidem. Et in stipendiis carpentariorum predictum maeremium in bosco de Hammesuccidencium et prosternencium, cariagio predictorum maeremii et bordorum, portagio eorundem, cepo, rosilio, pinguedine, stramine, et aliis diversis emptis pro eadem galia .xvi.li. xiii.s. i.d. q^a. sicut continetur ibidem. Et in stipendiis magistri Arnaldi de Baiocis magistri predicte galie qui cepit per diem .ix.d. stipendiis schipwrightorum super dictam galiam operancium per xii. septimanas, et stipendiis carpentariorum prefatum maeremium dirigencium .xvi.li. vi.s. viii.d. ob. sicut continetur ibidem. Et in stipendiis duorum hominum ultra predictos operarios existencium, et custodiencium maeremium bordos et omnia alia necessaria pro eadem galia .xlii.s. sicut continetur ibidem. Et in uno masto et duabus seilyerdes emptis pro eadem galia .lxxviii.s. iii.d. sicut continetur ibidem. Et in cordis qui dicuntur uptein, heuedropes, steies, gerdingges, yerdrops, lestingges, stotingges, et aliis diversis cordis emptis pro eadem galia .x.li. vii.s. iii.d. Et in quatuor anqcoris iiiii. cablis cum una polliua et racka .c.xii.s. vi.d. sicut continetur ibidem. Et in ccc. canabi, cordis pro velo ad eandem galiam stipendiis diversorum dictum velum sculpancium et consuencium pro eadem galia .vii.li. xviii.d. ob. sicut continetur ibidem. Et in ccc. ulnis panni de Beauuer pro dicta galia cooperienda, filo pro eodem et velo consuendo, stipendiis diversorum velum elargancium et dictum pannum consuencium pro eadem galia .liiii.li. iii.s. x.d. Et in .iiii^{xx}. vi. ulnis et una pecia de Worsted .vii. ulnis de Carde, vexillis et pencellis, lanceis pro eisdem, factura eorundem, et quatuor fanorum pro eadem galia .liiii.li. xiiii.s. i.d. ob. q^a. sicut continetur ibidem. Et in .iiii. astris factis in eadem galia, tonellis vacuis pro lupettis, gatis, discis, platellis, intus ponendis emptis, expensis unius clerici particulas ejusdem galie irrotulantis, pergameno empto et aliis minutis expensis pro eadem galia .vi.s. ii.d. ob. sicut continetur ibidem. Et in .cc.xx. remis emptis et factura eorundem pro eadem galia .xi.li. xvii.s. vi.d. sicut continetur ibidem.

Summa prime galie .cc.xli.li. ix.s. v.d.

Reparacio et emendacio ejusdem galie.

Iidem computant in .cclix. peciis maeremii emptis pro predicta prima galia que per maris intemperiem diruta fuit et fracta in fundo, reparanda et emendanda .viii.li. xii.s. sicut continetur in rotulo de particulis quem iidem vicecomites liberaverunt in Thesauro. Et in .c.iii^{xx}.ii. bordis emptis pro eadem galia .iiii.li. viii.s. vi.d. sicut continetur ibidem. Et in .m^l.m^l.cc. Wiuelingges emptis pro eadem galia .v.s. vi.d. sicut continetur ibidem. Et in .m^l.dcc. ferri empti, stipendiis fabrorum dictum ferrum operancium pro eadem galia .c.xiii.s. viii.d. sicut continetur ibidem. Et in .m^l.dcc. clavorum qui dicuntur Semnail .xiii. millibus dcc. et di. clavorum Spikingges .m^l.m^l. clavorum de Tingelnail et .m^l. clavorum Dorenail .lxviii.s. vii.d. sicut continetur ibidem. Et in uno barillo de Thar .ii^{bus}. barillis picis emptis pro eadem galia .xviii.s. viii.d. sicut continetur ibidem. Et in expensis magistri Arnaldi magistri ejusdem galie qui cepit per diem .ix.d. et aliorum Schipwrightorum per .ix. septimanas .xxv.li. ii.s. iii.d. sicut continetur ibidem. Et in cariagio predictorum maeremii, bordorum, portagio cargagio et discarcagio, sepo, pinguedine, rosilio, stipendiis .ii^{rum}. hominum ultra predictam reparacionem assidue existencium per .ix. septimanas .lix.s. vi.d. sicut continetur ibidem. Et in .iii^{xx}. ulnis canabi .ix. libris fili pro velo elargando, cordis, una Seilyerd, una Strema, lanceis, doleis vacuis, pro armis infra ponendis, uno cacabo empto pro eadem galia .iiii.li. xvii.s. viii.d. sicut continetur ibidem. Et pro mutacione masti cum alio .iiii. m^{ar}. sicut continetur ibidem.

Summa emendacionis ejusdem galie .lix.li. ix.d.

Bargea Prime Galie.

Iidem computant in batello que dicitur Floyni empto ad primam galiam pro bargea facienda .vi.li.i.d. sicut continetur in rotulo de particulis quem liberaverunt in thesauro. Et in .ii^{bus}. brondis .ii^{bus}. Stanlocques .iiii. peciis maeremii emptis pro eadem .xv.s. iii.d. sicut continetur ibidem. Et in .cc.xxv. bordis pro hurdicio et hacch' pro eadem bargea .xlv.s. sicut continetur ibidem. Et in .m^l.m^l. clavorum magnorum .dcc. clavorum minorum .m^l.dcccc. Spikingges et .m^l.m^l.m^l. clavorum de Tingelnail .li.s. x.d. sicut continetur ibidem. Et in .ii. barillis picis, uno barillo de Thar emptis pro eadem .xix.s. iii.d. sicut continetur ibidem. Et in Wiuelingges rosilio portagio cariagio maeremii et bordorum et aliis expensis pro eadem .xix.s. ii.d. ob. sicut continetur ibidem. Et in stipendiis Schipwrightorum dictam bargeam operancium .c.i.s. ii.d. ob.

Summa bargee prime galie .xviii.li. xii.s.

Secunda galia.

Iidem computant in .m^l.c.xi. peciis maeremii emptis pro secunda galia .xiv.li. xviii.s. v.d. sicut continetur in rotulo de particulis quem iidem liberaverunt in thesauro. Et in .m^l.m^l.d.xlv. bordis emptis pro eadem galia .lviii.li. viii.s. viii.d. ob. q^a. sicut continetur ibidem. Et in .xiii^{or}. millibus .dcccc. et di. ferri emptis pro eadem galia .xxiii.li. viii.s. iii.d. sicut continetur ibidem. Et in stipendiis Galfridi fabri et sociorum suorum dictum ferrum operancium .xxvi.li. vii.s. v.d. sicut

continetur ibidem. Et in .m^l.m^l.m^l. clavorum majorum .dc. clavorum minorum, rivettis ad eosdem, et .xxxiiii^{or}. millibus .dcc. clavorum qui dicuntur Semnail Spiking', Tingelnail emptis pro eadem galia .vii.li. xiii.s. xi.d. q^a. sicut continetur ibidem. Et in .xix. barillis picis .iiii. barillis de Thar pro eadem .viii.li. sicut continetur ibidem. Et in stipendiis magistri Galfridi et aliorum Schipwrightorum per .xix. septimanas .lxxvi.li. xii.s. ii.d. ob. q^a. sicut continetur ibidem. Et in stipendiis carpentariorum predictum maeremium cecancium in boscis de Hamme et Adinton' et cariagio ejusdem .xiii.li. iii.s. sicut continetur ibidem. Et in stipendiis carpentariorum dictum maeremium dirigencium, portagio, cariagio, sepo, rosilio, et aliis necessariis emptis pro eadem .xxi.li. v.s. viii.d. ob. sicut continetur ibidem. Et in .dccc. ulnis panni de Beauver pro velo .c.li. fili pro eodem ad eandem galiam .x.li. xxd. sicut continetur ibidem. Et in stipendiis operatorum dictum velum sculpecium, consuencium per .xxiiii. dies pro eadem galia .lx.s. sicut continetur ibidem. Et in cordis et cordulis emptis a diversis pro eadem galia .xxiiii.s. iii.d. sicut continetur ibidem. Et in uno masto, uno longspret (*sic*) et i. Lof. i. Seilyerd. Windas. emptis pro eadem galia .vii.li. vi.s. ix.d. sicut continetur ibidem. Et in cablis et cordis emptis pro eadem .xxxii.li. vi.s. v.d. sicut continetur ibidem. Et in quinque Ancqoris emptis pro eadem galia .vii.li. xvii.s. iii.d. sicut continetur ibidem. Et in stipendiis pictorum dictam galiam depingencium, colore empto, stipendiis unius clerici particulas scribentis .lix.s. sicut continetur ibidem. Et in .ii^{bus}. cacabis, ollis eneis, cordis et cordulis, filo, .vi^{xx}. ulnis canabi, scopis, gatis, discis, platellis, tonellis pro aqua custodienda et aliis minutis expensis pro eadem .x.li. xix.s. viii.d. sicut continetur ibidem.

Summa secunde galie .ccc.lv.li. xii.s. x.d. q^a.

Bargea secunde galie.

Idem computant in .c.xxxv. peciis maeremii pro bargea secunde galie facienda .xii.s. vi.d. ob. sicut continetur in rotulo de particulis quem liberaverunt in thesauro. Et in .c. et di. bordorum emptis pro eadem .xxxv.s. viii.d. sicut continetur ibidem. Et in barillo picis pro eadem empto .vi.s. sicut continetur ibidem. Et in .d. ferri, v. millibus .dccc. et di. clavorum de Semnail, Spiking' et Tingelnail emptis pro eadem .liii.s. vii.d. ob. sicut continetur ibidem. Et in stipendiis magistri Galfridi et aliorum Schipwrightorum dictam bargeam operancium per .ii. septimanas .c.xvi.s. vii.d. ob. sicut continetur ibidem. Et in sepo, rosilio, pinguedine, cariagio, portagio, pro eadem .xxx.s. iii.d. sicut continetur ibidem. Et in .c.iii^{xx}. remis pro eadem .x.li. vi.d. sicut continetur ibidem. Et in .c.l. ulnis panni de Beauver, cordis et cordulis pro eadem .xi.li. ix.s. viii.d. ob. sicut continetur ibidem. Et non computant mastum pro ista bargea quia habuerunt mastum de instauro regis sicut dicunt.

Summa bargee secunde galie .xxxiiii.li. vii.s.

Reparacio et emendacio duarum bargearum.

Idem computant in .xxx. bordis estrensibus .iiii^{or}. millibus .c. clavorum majorum et minorum Spikingg', stipendiis carpentariorum, sepo, ollis terreis, cordis et cordulis, plumbo pro escis hominum et

aliis minutis pro eisdem bargeis emendandis per preceptum predicti Thesaurarii ex parte Regis .lxvii.s. viii.d. ob. q^a. sicut continetur in rotulo de particulis quem liberaverunt in thesauro. Et in colore empto pro eisdem bargeis depingendis .xi.s. ix.d. sicut continetur ibidem.

Summa emendacionis earumdem .lxxix.s. v.d. ob. q^a.

Summa omnium summarum .dcc.xiii.li. xviii.d. Et habent de superplusagio .ccc.lii.li. xvii.s. vii.d. ob. qui allocantur eisdem in Rotulo Principali post Corpus comitatus.

Magister Willelmus Toly .vi.li. quas recepit pro garnesturis ejusdem galie faciendis sicut supra continetur.

EXTRACTS FROM SUBSIDIARY ACCOUNTS

Summary Account of First Galley (E. 101. 501/23)

m. 1. Empcio clavorum pro Galea.
 Item in v^{ml}.d. et di. clavorum de majori custura cum Rivettis pro eisdem vi.li. xiii.s.
 Item in .iiii^{ml}. clavorum minoris custure cum Rivettis pro eisdem lx.s. viii.d.
 Item in m^l.ccc. clavorum de majoribus Spykinges emptis xxvi.s. v.d.
 Item in m^l.c. et di. clavorum minoris Spik' emptis ix.s. xi.d.
 Item in ix^{ml}. clavorum de minori Spik' emptis xxii.s. ix.d.
 Item in .iiii^{ml}. clavorum de Dorneil emptis xii.d.
 Item in v^{ml}. v^o. clavorum de Tyngelneil emptis vi.s. x.d. ob.
 Item in .ccc. et di. clavorum de Semeneil emptis iis. viii.d.

m. 2. Empcio cordarum et fili pro galea.
 Item in cordis que dicuntur Upteyen, Hevedropes, Steyes, Gerdingges, Yerdropes, Lestingges, Stetingges, Hanekes, Hauceres, Baksteyen, Towrop' et aliarum prout in rotulo per particulas x.li. vii.s. iiii.d.

Empcio canevacii pro velo consuendo.
 Item in tribus contenis canevacii et cordulis pro velo videlicet Wynies, Loreglynes, Twistlinen, Thurglinen, Forlokes, et aliis prout patet in Rotulo per particulas vi.li. xi.s. ii.d. ob.

Detailed Account of Second Galley and Barges (E. 101. 571/3)

m. 1. Empcio maeremii.
 . . . De eodem abbate [sc. de Stratford] cc. et ix pecie qui (sic) dicuntur Wrongen et Foteken .c. et .iiii.s. vi.den. *Precium pecie vi. den.*
 . . . De Henrico le Galeys ii. pecie xx.s. *Precium pecie x.s.* . . . De Salamone ate Walle i. pecia que vocatur 'gret windas' .vi.s. . . . Item in c. et ii. peciis meremii qui dicuntur 'foteken', 'wrongen' et 'schebemes' de Alexandro ate Walle emptis ii.s. *Precium pecie vi. den.* . . .

m. 2. Empcio Ferri et Clavorum.

... Item in dc. clavorum qui dicuntur grosse custure ad galeam predictam ... cum rivettis ad eandem .xv.s. *Precium c.ii.s. vi.d.*

m. 3 (*bis*). Ebdomada Secunda.

Minute expense.

Item in xviii. portitoribus portantibus quoddam magnum lignum ad fundum galee predictae de Trinitate London' usque Turrim ii.s. ii. den. *videlicet cuilibet eorum i. den. ob.* Item in xvi. portitoribus quoddam magnum lignum de Melkstret usque Turrim portantibus .xvi. den. *videlicet cuilibet eorum i. den. . . .*

m. 5. 3rd (*wrongly numbered 4th*) Week.

... Item in vii. ollis que dicuntur 'Pichpottes' ad galeam predictam in grosso emptis .v. den. ... Item in i. batello locato pro i. peciam apud Redecleve querendo et eandem apud Turrim ducendo .ii. den. ...

m. 6. 5th (*6th*) Week.

... Item in dccc. clavorum qui dicuntur 'Wythewenenayl' iiii.s. vi.d. *videlicet per centum vii. den. . . .*

m. 8. 7th (*8th*) Week.

... Item in portagio m^l.c. clavorum ligneorum de Castro Bainardi usque Turrim .ii. den. ob. Item in duobus portitoribus quandam schutam cum meremio carcantibus .iiii. den. ... Item in duabus lagenis olei emptis pro dicta galea unctanda .ii.s. ... Item in tribus schutis locatis pro meremio de Luton' usque ad Turrim ducendo .xii.s. ... Item in stramine ad seccandam navem empto .vi.d. ...

m. 9. 9th (*10th*) Week.

... Item in m^l. busce que dicitur 'Bileth' de Henrico ate Knoll in grosso empto pro clavis ligneis ad galeam predictam inde faciendo .x.s. Item in .iiii. carectis locatis pro .iiii. peciis meremii de Aula Plumbi usque Turrim ducendis .iiii. den. *videlicet pro carecta i. den.* Item in uno batello locato pro dcccc. et di. Billetti pro clavis ad galeam faciendis de Grenewiz usque ad Turrim ducendis .iiii. den. ...

m. 10. 10th (*11th*) Week.

... Item in i. carecta locata cum sex equis de Andrea Athelard pro quadam pecia que dicitur 'Mastspore' de predicto parco de Adinton' usque Grenewyz carcanda .xx.d. ...

In primis de Waltero Nog' i. carecta cum duobus equis locata pro meremio de Bosco de Wanstede usque Luton ducendo .vi.d. ...

m. 11. 11th (*12th*) Week.

... Item in viii. portitoribus quamdam placeam mundantibus ubi mastus et virga que dicitur 'Seylzerd' fieri debebat. Et pro meremio apud Londonestone ad colligendum et dirigendum viii.d. *videlicet unicuique eorum i.d. . . .*

m. 12. 12th (13th) Week.

. . . Item in x. portitoribus quandam cablam de quadam navi usque Turrim portantibus .ii.d. . . .

m. 14. 15th (16th) Week.

. . . Item in faletra-empta .i.d. . . .

m. 15. 16th (17th) Week.

. . . Item in .iiii. lagenis pinguedinis ad galeam unctandam emptis .iii.s. .iiii.d. *precium lagene .x.d.* Item in ollis ferreis emptis .viii.d. Item in .iiii. coffinis Rosilii emptis .iiii.s. *Precium coffini .xii.d.* In Wylingo in grosso empto .xvi.d. Item in portagio i. barilli picis et i. barilli de Thar a domo Johannis de Cant' usque Turrim .i.d. Item in stramine empto pro predicta galea secanda .vi.d. Item in faletra emptia .ii.d.

m. 16. 17th Week.

. . . Item in medietate picis sepi emptia de Ricardo de Totenham emptia .vi.s. .viii.d. . . . Item in i. pelle multonis pro galea unctanda .iiii. den. . . .

19th Week.

. . . Item in xii. portitoribus et bordas et 'rolleres' per i. diem portantibus .xii. den. *videlicet unicuique eorum per diem .i.d.* Item in xviii. libris de 'cade' in grosso emptis .xxii. den. Item in stipendiis lvii. hominum pikoyis terram sub galea fodiencium ac removencium ut melius et levius ad aquam tractaretur, videlicet per tres dies xlii.s. ix. den. prout patet per nomina eorum in quadam cedula huic rotulo consuta . . .

m. 17. Empcio panni pro velo.

Item in cc. et xlix ulnis panni de Beauver pro velo inde faciendo de Luca de Havering emptis .xlvi.s. .viii.d. q^a. *precium ulne ii.d. q^a.* Item in xlvi. ulnis panni de Beauver de Willelmo de Wandlesworth emptis .ix.s. *precium ulne ii.d. q^a.* Item in c.iii. ulnis panni de Beauver de Willelmo valetto Ade de Rokesle ad idem emptis .xxiii.s. ob. q^a. *precium ulne ii.d. q^a.* Item de Willelmo de Roquesle c. ulne panni pro xxii.s. vi.d. *precium ulne ii.d. quat'.* Item in c. ulnis panni de Beauver de Johanne de Halingbourne emptis .xxii.s. vi.d. *precium ulne ii.d. q^a.* Item in ccc. ulnis panni de Beauver de Johanne [repeated] de la Porte emptis .lxvii.s. vi.d. *precium ulne ii.d. q^a.* Item in c. libratis fili pro velo consuendo emptis x.s. v. den.

Summa :—x. libre xx.d.

Empcio cordarum pro velo.

Item in xx. duodenis cordarum que dicuntur 'hanekes' de Luca de Haveringge pro velo emptis x.s. *precium duodene vi.d.* Item in xviii. libratis cordarum que dicuntur 'Lorghlynes' de Willelmo de Wandlesworth in grosso emptis .ii.s. .iii.d. Item in vi. peciis corde que

dicuntur 'Twystlynes' de Luca de Haveringge emptis .xii.s. *precium pecie ii.s.*¹

Summa xxiii.s. iii. den.

m. 18. i. mastus, i. Bowespret, i. lof, i. windas de Johanne Alein de Faveresham in grosso empti .vi. libre. Item in i. virga empta que dicitur 'Seilyerd' .xxvi.s. ix.d.

Summa :—vii. lib. vi.s. ix.d.

Empcio cordarum apud Sandwyz.

In xxxvi. globis fili ad quandam cablam inde faciendam .xxxvi.s. *precium globi xii. den.* Item in xxx. globis fili ad duas cordas que vocantur 'Haucers' .xxx.s. Item in xlii. globis fili ad duas cordas que dicuntur 'Uptyen' faciendas .lxx.s. *precium globi xx. den.* Item in xxxviii. globis fili ad duas cordas que dicuntur 'Vorsteyes' inde faciendas .lxiii.s. iii.d. *precium globi xx. den.* Item in xii. globis fili ad duas cordis que dicuntur 'Trossen' inde faciendas xx.s. *precium globi xx. den.* Item in v. globis fili ad unam cordam que dicitur 'Forlok' inde faciendam .viii.s. iii.d. *precium globi xx. den.* Item in v. globis fili ad unam cordam que dicitur 'Boweline' inde faciendam .viii.s. iii.d. *precium globi xx. den.* Item in tribus globis fili ad duas cordulas inde faciendas .v.s. *precium globi xx. den.* Item in iii^{or}. globis fili ad unam cordam que dicitur 'Steting' emptis .vi.s. viii.d. *precium globi xx. den.* Item in viii. globis fili ad duas cordas que dicuntur 'Gerding' emptis .xiii s. iii. den. *precium globi xx. den.*

Summa :—xiii. libr. xii.d. Probat.

Empcio cordarum apud Faveresham.

In xl. globis fili ad xvi. cordas capitales que dicuntur 'Hevedropes' emptis .xl.s. *precium globi xii. den.* Item in factura et ligatura eorundem .iii.s. iii. den. *videlicet pro globo i. den.* Item in x. globis fili ad duas cordas que dicuntur 'Schetes' emptis .x.s. *precium globi xii. de .* Item in factura et ligatura eorundem .x. den. Item in iii. globis fili ad unam cordam que dicitur 'Hevedwyles' emptis .iiii.s. *precium globi xii. den.* Item in factura et ligatura eorundem .iiii. den. *videlicet pro globo i. den.* Item in v. globis fili ad duas cordas que dicuntur 'Zerdropes' emptis .v.s. *precium globi xii. den.* Item pro factura et ligatura eorundem .v. den. *videlicet pro globo i. den.* Item in iii. globis fili ad duas cordas que dicuntur 'Leftropes' .vi.s. viii. den. *pro globo xx. den.* Item in factura et ligatura eorundem .iiii. den. *videlicet pro globo i. den.* Item in iii. globis fili ad unam cordam que dicitur 'Kerfrop'. Et deserviet cordis que vocantur 'Stekieres' .v.s. *precium globi xx. den.* Item pro factura et ligatura eorundem .iii. den. *videlicet pro globo i. den.* Item in xiiii. globis fili ad xiiii. cordas qui dicuntur 'Wyniropes' inde faciendas .xiiii.s. *pro globo xii. den.* Item in factura et ligatura eorundem .xiiii. den. Item in vii. globis ad duas cordas qui dicuntur 'Baksteyes', longitudo cujuslibet xxiiii. teys', inde faciendas emptis

¹ In the summary of this account (E. 101. 571/2) these ropes are described as 'Lorwelines, Twistlines, Thurghlines, Hanekes, Loftropes, Shetes, Stekieres, et Wyniropes'.

.vii.s. *precium globi .xii. den.* Item in factura et ligatura eorundem vii. den. *videlicet pro globo i. den.* Item in vi. globis ad duas alias cordas que dicuntur 'Baksteyes' inde faciendas, longitudinis cujuslibet xx. teys', vi.s. *videlicet pro globo .xii. den.* Item in factura et ligatura eorundem vi. den. *videlicet pro globo i. den.*

Summa:—c. et v.s. v.d.¹

Pictura galee.

Item in quodam homine predictam galeam rubeo colore depictante in grosso .xx.s.

Summa:—xx.s.

Details of the First Barge.

m. 20.

Empcio meremii.

Imprimis in c xxv. peciis que dicuntur 'Foteken' de Henrico de Grenewyz in grosso emptis .vi.s. vii.d . . . De Johanne Ballard i. pecia que dicitur 'Stamlok' .iiii. den. Item due pecie que dicuntur 'Halsknen' de eodem empte .viii. den. *precium pecie .iiii.d. . .*

Empcio ferri.

Item in c. ferri de Martino Box empta .iii.s. vi.d. Item Willelmo fabro pro operatione ejusdem ferri pro magno clavo ad fundum batelli faciendo .iiii.s. vi.d. . .

Minute expense.

Item in ccc. clavorum ligneorum qui dicuntur 'Wythewenail' de Willelmo Smart emptis ix. den. *precium centene .iii.d. . .*

m. 21.

Empcio cordarum.

Item in i. corda que dicitur 'Forlok' ad eundem batellum empta .iii.s. Item in duobus cordulis que dicuntur 'lorghlynen' emptis .ii.s. .iii. den. *precium cujuslibet .xiii. den.* Item in cordulis que dicuntur 'Twystlynen, Hevedlynen' et 'Repbandes' et 'Hanekes' .iii.s. ix. den. Item in .viii. ligaturis que dicuntur 'Wynyes' pro predicto velo ligando .iii.s. Item in cordulis que dicuntur 'Thurtlynen' .xviii. den. Item in duobus cordulis que dicuntur 'Yerdropes' ad idem emptis .ii.s. Item in stipendiis x. hominum per vi. dies predictum velum sculpenrium ac consuencium x.s. *videlicet unicuique eorum .ii. den. per diem.*

Details of repairs to Barges (E. 101. 571/1)

Empcio cordarum.

In tribus cordis que dicuntur 'Rodropes' pro dictis bargeis emptis .iiii.s. ii.d. Item in una corda que dicitur 'Upteye' ad dictas bargeas empta .iiii.s. ii.d. Item in una corda ad .iiii. 'Yerdropes' empta .iii.s. Item in filo ad easdem in grosso empto .viii.d. Item in duabus cordulis ad plumbos qui dicuntur 'Sundinglend' emptis .xvi.d. *precium corde .viii.d.*

Summa:—xxxiii.s. ii.d.

¹ The summary account groups these ropes and the large cables as 'Hevedropes, Sheetes, Hevedwyles, Yerdropes, Steyes et Baksteyes, Haucers, etc.'

Empcio plumbi.

Item in duobus plumbis pro escis hominum in dictis bargeis existencium ponderis unius pise et di. preparandis .vi.s. *precium plumbi .iii.s.* Item in duobus plumbis qui dicuntur 'Sundingleden' .vi.d. *precium plumbi .iii.d.*

Summa :—vi.s. vi.d.

Empcio coloris pro bargeis depictandis.

Item in xxiii.li. unius coloris qui dicitur 'Redled' pro dictis bargeis emptis .iiii.s. *precium libre .ii.d.* Item in tribus libris Vermilionis ad easdem emptis .xii.d. *precium libre .iii.d.* Item in tribus lagenis olei emptis pro dictis coloribus temperandis et commiscendis .iii.s. *precium lagene .xii.d.* Item in stipendiis duorum hominum dictas bargeas depictancium .iii.s.

Summa :—xi.s. ix.d.

DISCUSSION

Professor CALLENDER thought that the Inventories of the 1295 Galleys required something like a profile or sheer draught to make their terminology intelligible. It was too much to hope for a thirteenth-century aid of this character; but shipwrights were a conservative class and later drawings would undoubtedly help. There was in the library at Greenwich a French MS., without date or title-page, but probably belonging to the seventeenth century, which showed with a wealth of scale-drawings the building of a galley such as Mr. Johnson had described. The MS. had perhaps been made to the order of Louis XIV from a lost Italian original. It had remained in Paris until 1815, when it was carried away to England, and since then had passed from the ownership of the Dean and Chapter of Exeter to Portsmouth and so to its present home. Its illustrations showed progress from week to week and supplied clues to many of the riddles which Mr. Johnson had propounded in editing the Newcastle Galley's inventories for *Archæologia Aeliana*. The 'lerynges' with the adjacent 'clone' would, when inventories and drawings were compared, appear to be the tabernacle of the mast; and this view was supported by the etymology of the words and by the evidence deducible from John Starlyng's Inventories of 1410. Mr. Johnson was doing valuable service by elucidating these inventories; and it would be interesting if his analysis could show whether the galleys of 1295 had rudders or still retained the steering-oar. He thought that the technical terms were too elaborate for a rudder.

Mr. ANDERSON thought the earliest representation of a stern rudder was on the Winchester font (of Tournai marble). The Mediterranean galley changed very little between 1300 and 1800; it was somewhat like a racing-eight with the outriggers planked in. Northern galleys, however, were more probably a development of the Viking long-ship. The vessel under discussion had a square sail, not the lateen sail of the Mediterranean; and he thought it did have a stern rudder. The original appearance of galleys might be recovered by a comparative study of French-Latin and English-Latin documents.

The PRESIDENT had anticipated discussion of a galley of 140 ft. with 140 oars: allowance would have to be made for prow and stern, and only 15 in. would remain between two oarsmen, which seemed to him a meagre allowance. The Society was grateful for the light thrown on London shipbuilding.

Mr. JOHNSON replied, with regard to the ship's length, that there was evidence within twenty years of the date for the use of galleys with all the oars on one level. There was a baulk down the middle, and there would be 3 ft. 4 in. between the thwarts. The length of the boat occupied by the oars was 120 ft.; and if it were an outrigger, the oars could be taken farther forward, only a small allowance being necessary for the stem and stern.

A Neolithic Site at Abingdon, Berks.

By E. THURLOW LEEDS, M.A., F.S.A.

[Read 10 February 1927]

At the end of April of last year the Rev. Charles Overy drew my attention to the presence of broken animal bones, flints, and sherds of pottery in a gravel-pit on the south side of the road from Abingdon to Radley, about a mile out of Abingdon (fig. 1).

The pit lies on the very boundary of the parish of Abingdon in a field at about 200 ft. O.D., just over half a mile north of the Thames and some 30 ft. above the river. On its eastern and southern sides it is bounded by the wide trenches which in the days of the splendour of Abingdon Abbey formed part of the Abbey's fish-ponds; on the north is the road, and on the east the ground drops to a little brook.

The owner of the land, Mr. W. Docker-Drysdale, and the lessees of the gravel-pit, Messrs. E. Organ & Son, of Oxford, kindly accorded me permission to explore the site, and in May Mr. R. T. Lattey and I began investigations, which are still in progress and seem likely to be continued yet for some considerable time. The interest of our discoveries has, however, seemed to be of sufficient importance to warrant an interim report.

We have to acknowledge valuable assistance received from numerous helpers, among whom we should wish particularly to record the names of Messrs. W. T. Biggs, M.A., C. B. Hunt, M.A., J. S. Huxley, M.A., of the University, and Mr. C. Eason of Culham College. I have also to express my gratitude to Messrs. R. A. Smith and T. D. Kendrick of the British Museum, and to Mrs. Cunningham of Devizes for assistance on several points at issue. The plan of the site has been checked and drawn by Mr. Overy.

The circular depression which first became known to us from Mr. Overy's observations measured 6 ft. in diameter and 2 ft. to 2½ ft. in depth. From the filling were extracted a mass of broken animal bones, sherds of crude pottery, and numerous pieces of flint. Further tentative investigations in the vicinity of this depression revealed remains of what must have been part of a trench about 3 ft. deep running eastwards. From the upper layers of this trench at a depth of about 9 in. to 21 in. below the surface further sherds and flints were recovered. This layer was succeeded

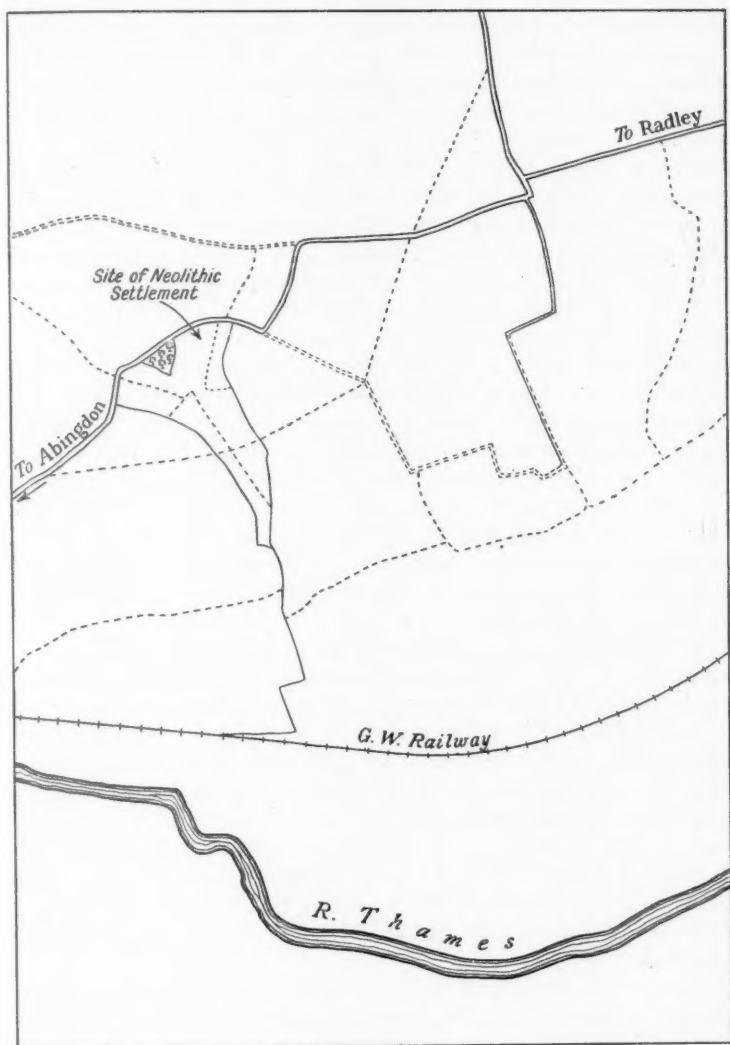


FIG. 1. Map of district.

by a barren layer of filling, 6 in. thick, below which again was found a second layer 9 in. thick resting on the gravel. On this layer were observed two small rings of large water-worn pebbles, apparently the site of hearths, one 27 in. in diameter, with flint flakes and sherds amongst and around them.

A little distance from this trench the section of a pit about 18 ft. in diameter and $3\frac{1}{2}$ ft. deep had already been exposed in the course of gravel-digging. More than half of the pit had been destroyed, but from the remainder were recovered a large quantity of flints, including a fine lozenge-shaped arrow-head 2 in. long (fig. 5, *b*), and several large scrapers of various shapes, besides numerous flakes of all sizes, and many small sherds of pottery.

Along the north side of the field a strip of land, two chains deep, has been reserved from the lease of the gravel-pit. In the perpendicular wall left by the removal of the gravel up to the south edge of this strip two curved depressions are visible, and our operations were begun at a time when the more easterly of these depressions was still only divided by an interval of some 12 ft. of excavated material from a corresponding depression in the still intact gravel-face at right angles to this northern wall. Leaving the depressions in the reserved land for the moment, we started work in that visible in the working-face, which might at any time be destroyed, on the assumption that we had to deal with a circular hut-hole.

But, though on our penetrating the depression to a distance of some 3 ft., the gravel-floor was seen to rise to a level 30 in. below the surface of the field, it was still some 15 in. below the normal level of the gravel which begins at some 15 in. below the surface. Continuing the excavation over this higher layer of gravel for a short distance we found that the level began to dip sharply once more, and, to cut a long story short, we soon realized that we had to deal, not with a series of round hut-holes at all, but with a continuous trench (see fig. 2), with, as will appear from the subsequent account, breaks at intervals formed of later refilling, but made while the trench was still in use by its prehistoric inhabitants.

The trench has a east-south-easterly trend and runs almost straight for some 60 ft., after which it begins to curve very slightly southwards. It is clear that the depressions observed in the wall of the reserved strip of land form part and parcel of this same trench in a north-westerly direction, but their exact relation to that portion already excavated cannot be determined without investigation, which we hope to make at some future date.

After passing the initial break caused by refilling at the western

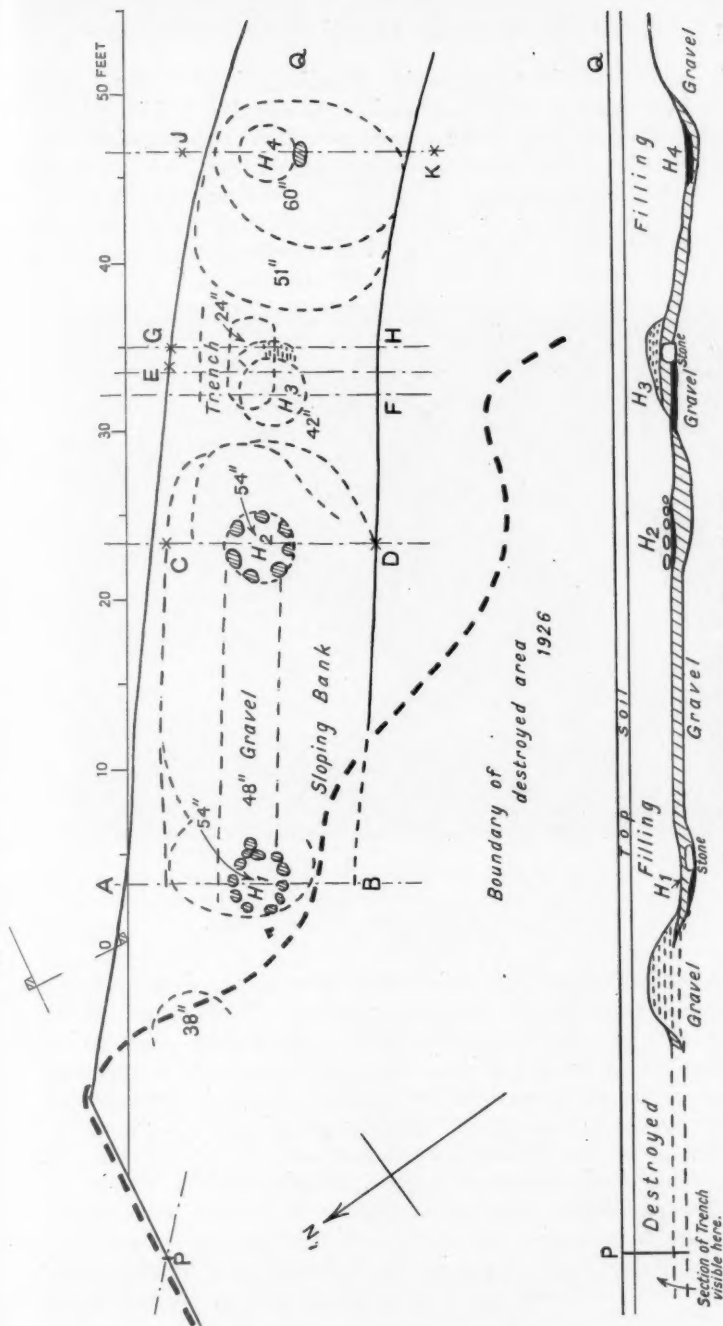


FIG. 2. Plan and Section of Site.

end we were able to ascertain the dimensions of the trench laterally. They amounted to a width of some 18 ft. immediately below the top-soil and some 3 ft. to 4 ft. at the bottom, with sloping sides, that on the north having an angle of 45° , while that on the south was less pronounced (fig. 3). These slopes were of gravel faced with a covering of marly earth easily distinguishable from the material with which the trench had subsequently become filled.



FIG. 3. Trench looking north-west showing northern slope, and black filling near the measure; and section of trench in face of gravel behind and between the crosses.

The depth of the trench varied from 4 ft. to 5 ft., but kept to a constant depth of $4\frac{1}{2}$ ft. over a long stretch. The nature of the filling will be best understood from a description of a typical section at one or two points. Nine inches of turf and top-soil was succeeded by a layer of fine loamy earth, practically speaking sterile, varying from about $1\frac{1}{2}$ ft. at the sides to 2 ft. at the middle. This was followed by a band of similar material, but much blacker, with traces of charcoal, occasional flints, and sherds of pottery. Below this lay what may be termed the cultural layer proper, 1 ft. 3 in. to 1 ft. 6 in. thick at the middle and thinning out to not more than 3 in. in thickness up the sides of the trench. This bottom layer was full of broken animal bones,

flints, and in some places numerous sherds of pottery, with occasional quartzite pebbles often reddened by fire. Filling of this type remained fairly constant over a distance of some 45 ft. eastward from the first secondary gravel filling at the western end. In this section it was noted that the charcoal layer at the bottom penetrated in a band, 3 in. thick, beneath the slopes of the trench, chiefly on the south side, for a distance of about 18 in. It is evident that shortly after the first occupation of the trench the gravel walls must have started to slide, partly covering the original floor of the trench, and that in order to prevent further collapse the inhabitants consolidated the surface of the slopes by the application of a layer of marly earth.¹

The word 'occupation' has been here used advisedly, since it will become clear from what follows that the trench was something more than a mere boundary- or enclosure-ditch and was actually used for habitation. The first indications of this were a group of large stones near the west end forming part of a hearth (H. 1 on the plan), among and around which the charcoal layer was especially evident and flints were particularly numerous. The same features were noted at H. 2 (see section C-D, fig. 4, a). This section shows clearly the process of strengthening the slopes at an early stage of the occupation. The hearth in this case belonged to a more advanced period, since the large round pebbles which formed the surround of the hearth lay at least a foot above the bottom of the trench. The hearth itself measured 3 ft. in diameter and its centre was full of charcoal, but with few remains of any kind. Below this hearth was the usual cultural layer. On each side of the hearth was a pebbly layer which would seem to have constituted the floor at the time the hearth was in use.

A third hearth (H. 3) lay on a 6-in. rise in the gravel-floor. Of the same diameter as the last, it seems to have been open on its west side. On the north and south it was protected by the usual pebbles and one large piece of limestone, while at the back there stood a low wall made of clay strengthened with broken animal-bones. The closeness of this hearth to the preceding one suggests that it had been the predecessor of H. 2 for this portion of the trench, a suggestion borne out by the fact that this hearth (H. 3) had at some period been completely covered up with a layer of gravel and soil which at this point of the trench formed a bolster-shaped mound, 6 ft. long by 3 ft. wide, with its long axis along the middle of the trench. The top of this mound (see section C-H, fig. 4, b) stood about a foot higher than the other

¹ In the fragment of trench first excavated (*supra*, p. 440) the sterile layer would seem to have been caused by a similar slide from the wall.

accumulation of material at this point and only 2 ft. below the surface. That this mound constituted part of causeway across the trench is hardly likely, since between it and the north wall of the trench was a narrow gully, the bottom of which reached to the

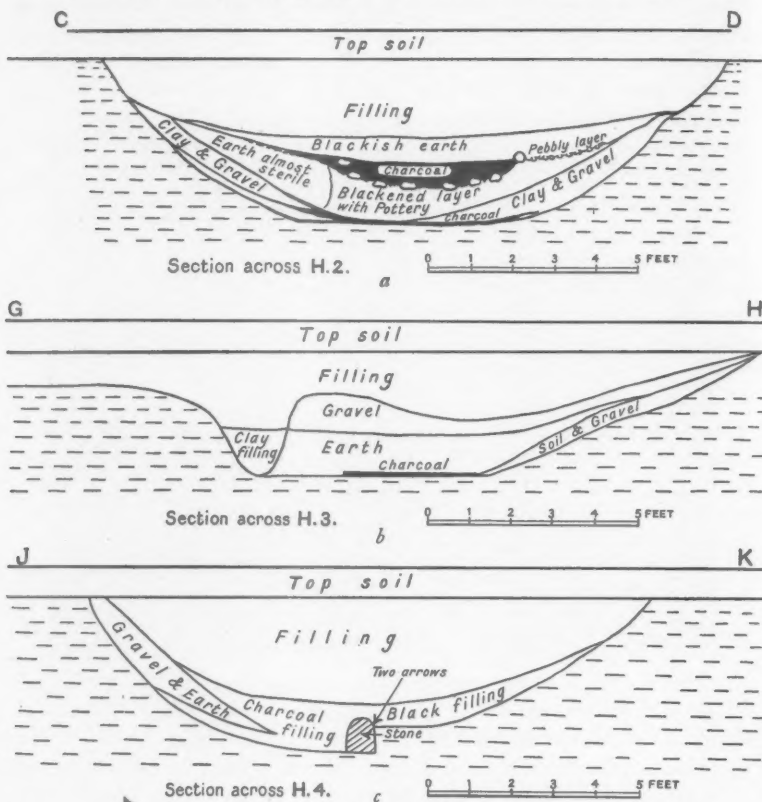


FIG. 4, a-c. Sections of trench.

level of the gravel at 42 in. It was more probably in the nature of a party-wall constructed to separate the section of the trench beyond it, and it is just possible that the gully was the means of communication between the two sections. In any case this block in the trench is comparable with that which was encountered earlier. There, too, signs existed that the earliest charcoal layer had penetrated beneath the barrier.

Beyond the mound covering H. 3 the floor of the trench was found to descend again rapidly to the greatest depth yet reached,

namely 5 ft., at the bottom of an oval pit, with its northern wall, as first encountered, steeper than at any previous part of the trench. Here, as will be seen from section J-K (fig. 4, *c*), we have a good example of the sliding of the wall of the original trench, against which the inhabitants had to contend. Above the lowermost 4 in. of the charcoal layer a wedge of mixed gravel and earth has thrust itself across the charcoal more than halfway from the wall in the direction of the inner edge of the hearth. From the inner wall of the hearth to the point of the farthest penetration of this wedge the charcoal layer rises continuously upwards to a height of 10 in., but towards the north wall it overlies the material which had slipped down from the wall. On the southern side this had not happened, and here the slope conformed to that of the portion previously excavated. As we proceeded eastwards the floor was found to rise gradually upward once more until the bottom of the trench was reached at a depth of no more than 3 ft. from the surface. This pit-like section of the trench measured 8 ft. to 11 ft. in diameter and unquestionably served as a dwelling, since the north-east quadrant of the pit was occupied by a thick charcoal layer, the accumulations of a large hearth, some $3\frac{1}{2}$ ft. in diameter, the limit of which southwards was indicated by a large block of quartzite on the floor of the pit. Beyond this again southwards the gravel floor stood 6 in. higher. On this bench finds were scarce, but close to the edge of the hearth were discovered two fine leaf-shaped flint arrow-heads (fig. 5, *e* and *g*) (by the side of the quartzite block), an imperfect comb-like implement made of antler, finer specimens of which had already been found close to hearth 2, and farther eastwards on the rising bench a parcel of no less than six large flint scrapers. The filling of the hearth itself produced much debris of flint-working. Sherds were noticeably scarcer in this pit than in the long section of trench previously excavated.

At the time of writing this rise in the trench has mounted to $2\frac{1}{2}$ ft. below the surface, and signs of what seems to be a causeway across the trench are beginning to appear.

The objects discovered comprised the following classes, arranged according to materials :

IMPLEMENTS OF FLINT

From all parts of the site flint has been found in large quantities in the form of cores, flakes, often of quite minute size, and other debris apart from the manufactured implements. It was noticed, however, in the trench that such signs of flint-working were particularly marked in the vicinity of the hearths

in contradistinction to pottery, which was less frequent at those points.

To give some idea of the mass of flint I give here the actual weight of the flint cores and other debris, exclusive of finished implements from three areas, (1) the portion of the round hut excavated at an early stage of our work; (2) the section of the trench between the west end and the bolster-like mound; and (3) the section beyond this mound to the end of the oval pit eastwards. The weights are (1) $3\frac{1}{4}$ lb.; (2) $16\frac{3}{4}$ lb.; (3) 9 lb.

Scrapers. Numerous. Mostly round, oval, or pear-shaped, varying from about 1 in. to 2 in. in length. The chipping on them is as a rule rather flat. Specimens with steep-flaked cutting edges are less common. The workmanship is not of a high standard. Only in some of the smaller pieces has a neat finish been achieved. Total weight from the trench, 3 lb. 5 oz.

Serrated Flakes. Quite the most outstanding feature of the flint-working on this site. It might almost be said that practically every thin flake above $1\frac{1}{2}$ in. in length and of substance and form suitable to the purpose has had one or both of its long edges chipped into minute serrations. The longest specimen thus treated measures just over 3 in., the widest some 2 in. Many of the serrations are only now to be detected with difficulty, having been broken away by use. In two specimens a piece of flint at an obtuse angle to one end of the flake was left on deliberately to serve as a handle. The serrated edge of the flake is of three types: (1) straight; (2) convex: a rare type; and (3) concave. This last type is quite common and may be compared in point of form to that of a woodman's bill, the serrations extending along what would be the entire cutting-edge of the bill. Total weight from the trench, 3 lb.

Borers. Only two pieces seem to answer to this description, the one a narrow triangular flake, $1\frac{3}{8}$ in. long, with fine secondary chipping on both faces of the point (fig. 5, *l*); the other a thin flake with a notch chipped out at each side of one end, leaving a short point in the middle line of the flake.

Axes. Portions of three polished axes¹ of white patinated flint, evidently of flat oval section, one showing remains of a pointed butt. All three fragments have had flakes knocked off them. Some of these flakes have been found, and one has been fitted to the axe from which it had been detached; another had been made into a saw.

Arrow-heads (fig. 5, *b-k*). Eight complete and ten fragments

¹ Similar to that from the ditch of Wor Barrow. Pitt-Rivers, *Excavations in Cranborne Chase*, ii, p. 260, fig. 2.

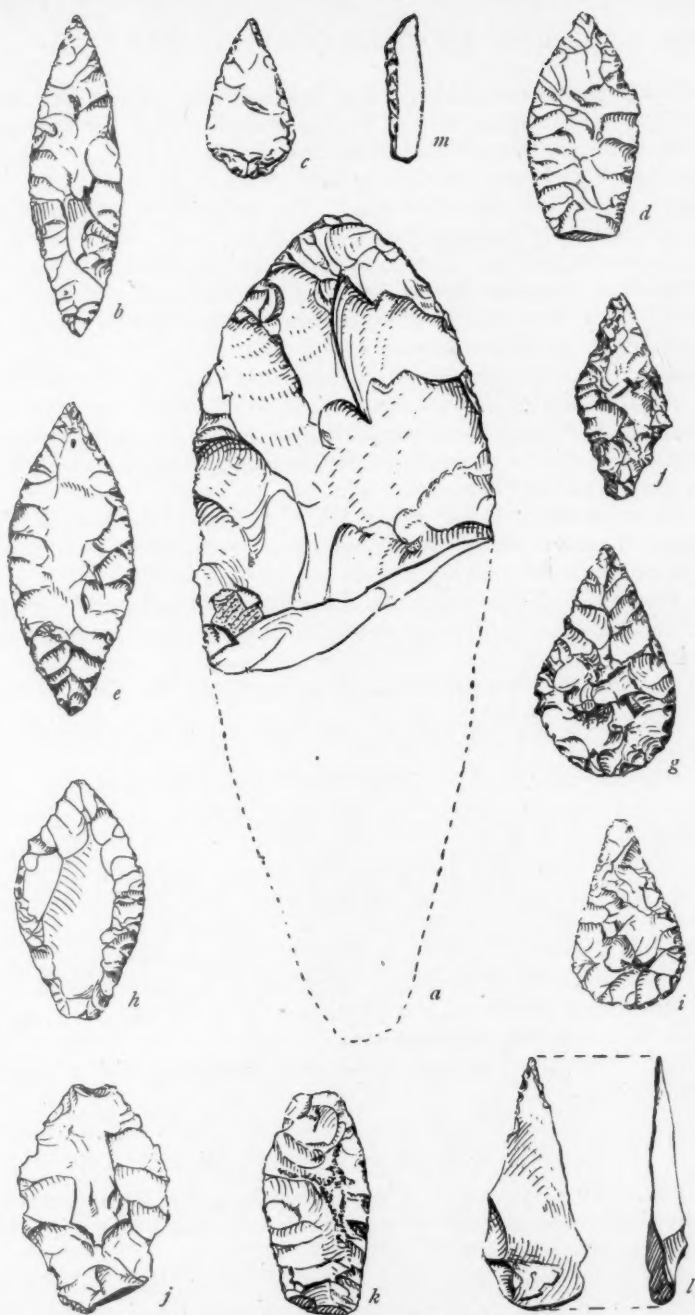


FIG. 5. Flint dagger, arrow-heads, etc. ($\frac{1}{2}$).

of other specimens, besides a few flakes worked on one face only, which give the appearance of having been intended for the same use. In form they are all leaf-shaped of varying width or pointed ovate. The largest, 2 in. long and $\frac{7}{8}$ in. wide, a fine willow-leaf form, came from the round hut. The smallest, pointed ovate in shape, is only 1 in. long.

Dagger and knives. The point-end of a nicely worked example of white flint originally measuring about 5 in. long and 2 in. wide (fig. 5, a). Two flints of pointed ovate form, the first one an apparently unfinished implement, the second a thinnish flake worked up on one face, but with chipping only along the edge of the other.

A piece of flint $2\frac{1}{2}$ in. long and 2 in. wide, with a flat butt, has been worked down to a rounded cutting-edge, and is probably an unfinished chisel-like implement. It seems to have been broken at the butt-round in the making.

Miscellaneous. A few thick flakes and core-like lumps with signs of heavy batter along one edge or on one face may be fabricators or fire-making flints.

Pygmy (fig. 5, m). One typical example, $\frac{7}{8}$ in. long, with characteristic transverse chipping on the back and the short edge of the point.

IMPLEMENTS OF STONE

Axe. A small fragment of a polished axe of dark grey-green schist.

Hammer-stones. Quartzite pebbles up to 5 in. in length, of a size suitable for holding in the hand, with one or both ends battered by use.

Rubbers. Rounded quartzite pebbles, 4 in. to 5 in. in diameter, with one face flattened by constant wear. In addition many of the large quartzite pebbles which were found reddened by fire around the hearths show signs of grinding or hammering.

Grindstone. A fragment of a large block of quartzite with two slightly concave surfaces worn by grinding on one face. It might have been used for polishing axes.

Bead? A small amorphous piece of manganese with a natural perforation.

IMPLEMENTS OF BONE AND ANTLER (pl. LII. I, a-h)

Pins. Two examples, $2\frac{3}{4}$ in. in length, made from pieces of split bird bones, pointed at one end and with traces of the interior concave surface on one side (h).

Handles. Three short limb-bones of ox or deer and sheep, with one or both epiphyses broken off and the interior pith

removed, the outer surface highly polished by use ; also the point of a small tine with a high polish.

Polisher. Part of the pointed end of a tine of an antler, the butt-end rough, the point highly polished, possibly used for smoothing pottery (*c*).

Combs. Five more or less perfect examples, all made from antlers. The largest (*b*) is formed from a piece from the base of a shed antler of red deer, 8 in. long, to just below the trez-tine. Part of the brow-tine has been left on and hollowed out. The bez-tine has been entirely removed. Above this point the shaft has been cut into a ring of nine teeth, of which three are still complete. The teeth have been cut by sawing long grooves down the shaft from the upper end, the cuts in most cases following the natural sulcations of the antler. In the second (*a*), 6 in. long, the two uppermost tines of the antler have been roughly removed and the portion of the shaft below has been similarly cut into a ring of ten points, some of the less complete of which show signs of having been broken and their tips worn down again by use. The shaft below the teeth is highly polished. These two were found near Hearth 2. A third (*d*), imperfect, unfinished example was made from the same part of an antler as the second. Of the other two, the one (*f*) is cut from a similar piece as the last two, but of much smaller size and with the two tines left on, and has remains of seven teeth, while the other (*e*) is made from a large tine itself, with five or six teeth, the point of the tine serving as the handle.

A tooth (*g*) 2 in. long from one of these combs shows in an admirable manner the hard surface in the natural grooves, which the maker followed up in order to form the teeth.¹

Scoop. A portion of the tibia of an ox, 6 in. long, towards the proximal end. The outer round face of the bone has been roughly cut into a curved edge, and the sides cut back on the

¹ A similar treatment of bone by sawing longitudinal furrows occurs on pieces of articular extremities of limb-bones of elk and the like from the moss-finds of Denmark. Part of the metacarpal of a red deer and of a tibia of elk from Maglemose (*Aarbøger*, 1903, pp. 237-8, figs. 25-6) and twelve examples from Sværdborg (*Mém. Soc. Ant. Nord*, 1926-7, p. 114, fig. 63) are regarded as debris from the manufacture of bone points, but neither the material nor the condition admits of such an explanation for the worked antlers from Abingdon.

Two imperfect combs like those from Abingdon were, however, found by Mortimer in barrows at Garton Slack (*Forty Years*, fig. 727) and at Huggate (*ibid.*, fig. 929). The first of these was submitted to Sir John Evans, who pronounced it to have been a comb. As from the decoration of the pottery we know that these early inhabitants were able to make cord-like material—and were even perhaps able to weave—these combs were probably used like the Late-Celtic combs for teasing out wool or other fibrous material.

slope for $1\frac{1}{2}$ in., thus removing the inner face of the bone and leaving a scoop-like end. The end shows no sign of wear and the implement, if such it is, is in process of manufacture.

POTTERY

Large quantities of pottery have been found, all in very fragmentary state. This is not to be wondered at considering the quality of the fabric, the firing, if indeed it can be termed such, having been of a very perfunctory character. There is little which would not dissolve if immersed in water for any length of time. Fortunately, slow drying after excavation hardens it sufficiently to admit of its being handled and mended where it is possible to fit the fragments together.

The paste varies in texture. Mostly it is of earthy clay with a varying admixture of grit, in extreme cases amounting to well-nigh 50 per cent. of the mass. The grit employed is almost always shell.¹ It appears as small grains, the result of careful pounding, or in flakes sometimes large enough to allow the nacreous texture of the shell to be clearly detected with the naked eye. The pottery of this composition is exceedingly friable. The slight firing which it has undergone has left no more than a thin bark. Once that bark is pierced the paste crumbles almost at the least touch, or, if placed in water, dissolves at once.

Exceptions to paste of this kind do occur. Fragments of a large vase in which the grit only occurs as sparse flecks in the paste are somewhat harder, though possibly this state may be due to the fact that the fragments were found resting on the gravel floor of the trench, where conditions of drainage were better as compared with perpetual dampness of the charcoal-laden cultural layer. But this layer has itself produced several fragments, all apparently belonging to the same vase, in which the grit used seems to have been finely pounded flint, giving the ware a rough hard feel as compared with the slightly soapy surface of the ware described above. It should be here noted that this soapy texture, owing to the presence of grit in some, however small, quantity, is in no way so pronounced as in pottery like the sherds found at Astrop, or the decorated bowls from the Thames Valley. More distinct are a few examples of a ware in which grit is entirely absent, or rather, seems to have been replaced by an admixture of sand with the clay, producing a fine-grained close texture.

Lastly may be mentioned fragments, always of quite small pots,

¹ As in pottery from Wiltshire and Gloucestershire, *Arch.*, xlii, 195, and *Wilt. Arch. Mag.*, xxxvi, 305-6.



FIG. 1. Antler combs and smoother; bone pin

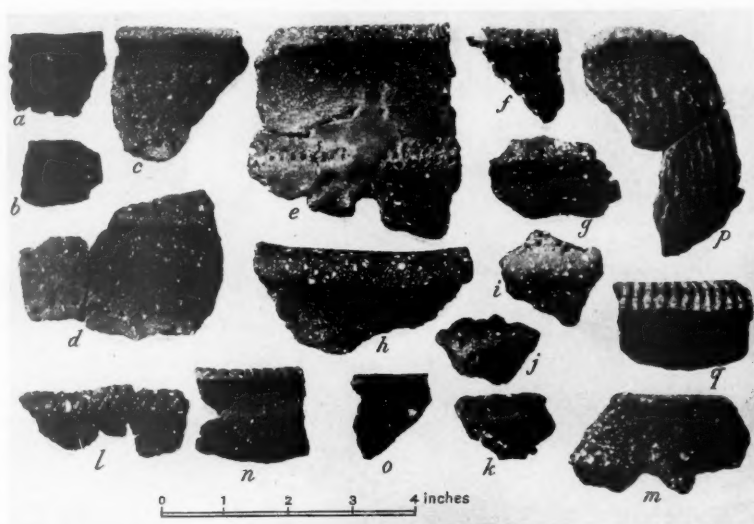


FIG. 2. Decorated pottery

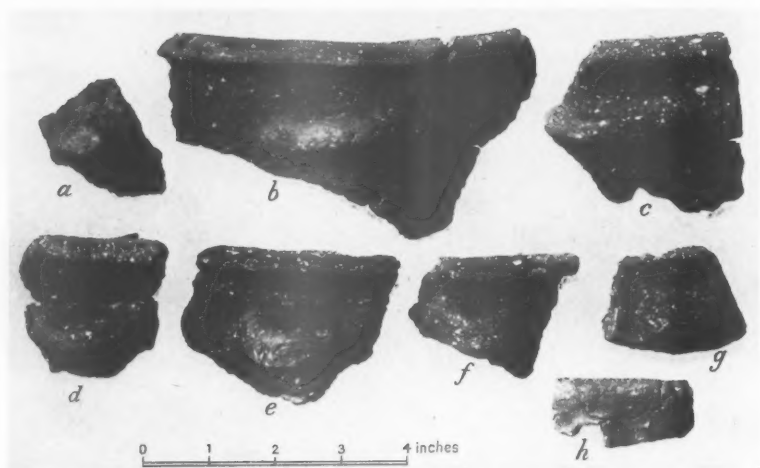


FIG. 1. Pottery: ledge and ring handles ($\frac{1}{2}$)



FIG. 2. Round-bottomed bowls ($\frac{1}{4}$)

the paste of which seems to have been composed of ruddle with a slight admixture of sandy clay to bind it together. When dry, this material is exceedingly friable, and in water dissolves easily. As lumps of ruddle have actually been found, it is perhaps justifiable to surmise that these small hemispherical pots, for such seems to have been their shape, were actually ruddle-pots. A few drops of water poured into them would admit of the colour being rubbed off easily on to the finger.

Colour. Mostly chocolate to dark brown, turned red in patches or completely by more intensive firing. A few pieces are nearly black, such as the small vase (pl. LIII, 2, *a*), which is of the sandy texture described above, and others like it with comparatively little grit. These have quite a fair burnish. Some fragments, obviously portions of the same vase as other pieces of a more ordinary colour, are now a light red throughout and are clearly the result of subjection to great heat, since the vases to which they belonged were broken.¹ This is, however, almost certainly not the case with a great mass of fragments of which the exterior face is a light red, while the interior is blackened with charcoal. To what type of vase these fragments have belonged is still a mystery. They are thicker than the usual run of the pottery (a piece from the centre of the base of a round-bottomed pot being nearly $\frac{3}{4}$ -inch thick), but, as no rims of any description in any way answering to this ware have been found, it is possible that they are the thickened bottoms of the largest vases. If so, these must all have had round bottoms. The inner face of some fragments is a deep black in colour, and the plentiful sprinkling of shell-grit in this background gives the pottery almost a micaceous appearance.

Since it has only been possible to restore completely two vases, and in a few other cases to reconstruct the forms from sherds, it has been thought better to describe the details before passing to the actual shapes.

Rims (fig. 6). Vases with plain unmoulded rims are quite uncommon (1 and 27). The simplest variation is arrived at by bending the upper edge, usually outwards (2-5 and 12), or by thickening the upper part of the wall (6-8 and 11). A common method was to squash down the edge of the clay so as to leave a lip projecting on the outside or inside only, or on both sides of the wall. In the first case the result is either a true out- or in-turned lip or a flange-like projection (9-10). In the second the flange projects on both

¹ This same process has been observed in the Saxon pottery found at Sutton Courteney (*Archaeologia*, lxxiii, 178). That pottery too was of a primitive type and ordinarily very indifferently fired. Its slight superiority to the neolithic ware is shown by the greater whiteness and toughness produced by this secondary firing.

faces (13-15). More often some attempt has been made to roll the flange downwards until it meets the wall, leaving a nick or break at its junction with the wall (16-20 and 24). The rim in such cases may vary in shape round the vase, the result of collapse from the weakness of the clay, occasionally to such a degree that from the rim alone it would not be possible to judge that certain fragments belonged to one and the same vase. Even where more

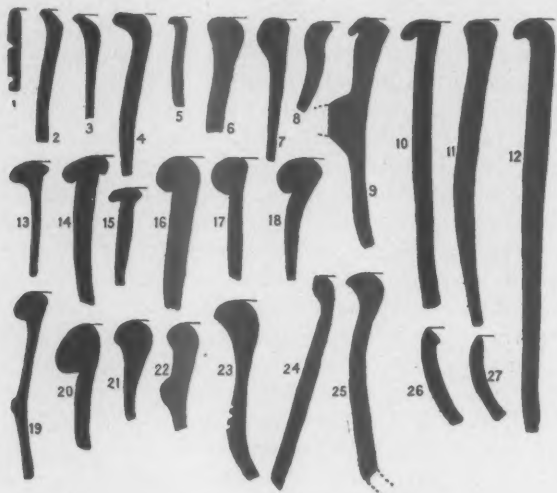


FIG. 6. Abingdon pottery: sections of rims ($\frac{1}{3}$).

care has been taken to produce a regularly rounded rim, there is usually a distinct break between the bottom of the rim and the wall. Only in exceptional cases has the lower exterior edge of the rim been luted to the wall itself (21-3 and 25). A small cup, $2\frac{1}{2}$ to 3 in. in diameter, has its rim bevelled towards the inside, a feature of rare occurrence (26).¹

Handles (pl. LIII, 1). Not uncommon and of several varieties: (a) ledge-handles,² varying from 1 to $2\frac{1}{4}$ in. in length. The shortest (a) is no more than a beak-like projection curved slightly downwards, leaving a hollow on its under side. The others (b-c) have a rounded edge and a shallow depression above and below against the wall of the vase. (b) perforated lugs. These are rare.

¹ These sections should be compared and contrasted with those from Fengate (*Antiq. Journ.*, ii, 232, fig. 12).

² Cp. Norton Bavant (*Archaeologia*, xlii, 195, fig. 4); Isle of Arran (*P.S.A. Scot.*, xxxvi, figs. 6, 10, 17, 34); Sandhill, Dún Droma (R. A. S. Macalister, *Ireland in pre-Celtic Times*, fig. 74).

They occur on the small restored vase (pl. LIII, 2, *a*), and in one instance as a perforated enlargement on a carination at the junction of the base (*g*). (*c*) loop-handles; horizontal and vertical (*d-f*). In the former the orifice is sometimes so small as to amount to little more than a perforated ledge-handle. More usually, as in the vertical type, it is of a fair size (fig. 7, *a*). Pl. LIII, 1, *h* shows part of the hole made for insertion of one end of a vertical handle.

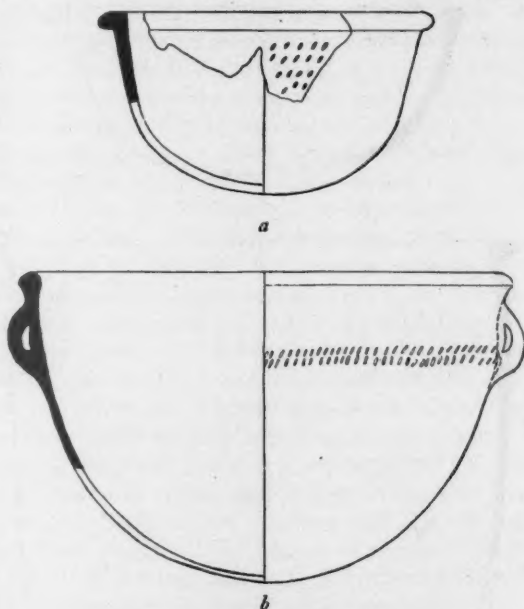


FIG. 7. Restoration of vases ($\frac{1}{4}$).

Bases. Everything points to a round bottom in the majority of the vases. On the sherd (*g supra*) the angled junction of such a base is just visible.¹ Otherwise frequent specimens of the thickening at the junction of the wall and the base, as well as pieces of flat pottery, would have been found. These latter are exceedingly uncommon, and only one fragment showing clear indications of the curve from a flat base up to the wall has been discovered. It has already been suggested that certain light-red thickish fragments may be the bottoms of round-bottomed vases. Against this there has to be taken into consideration the fact that

¹ It may be compared with the vase from Largie, Argyll (*Proc. Soc. Ant. Scot.*, xxxvi, 135, fig. 51).

the lowest portion of the walls of some of the largest sherds preserved, e. g. fig. 8, *b*, is no more than $\frac{1}{4}$ inch and even less in thickness. The pit containing Hearth 4, though containing little pottery, as compared with the trench to the west, produced more sherds of possible bases than the rest of the trench. They are distinguishable from the rest of the pottery by a peculiar mottled surface.

Shapes. The greater proportion of the sherds point to pots of

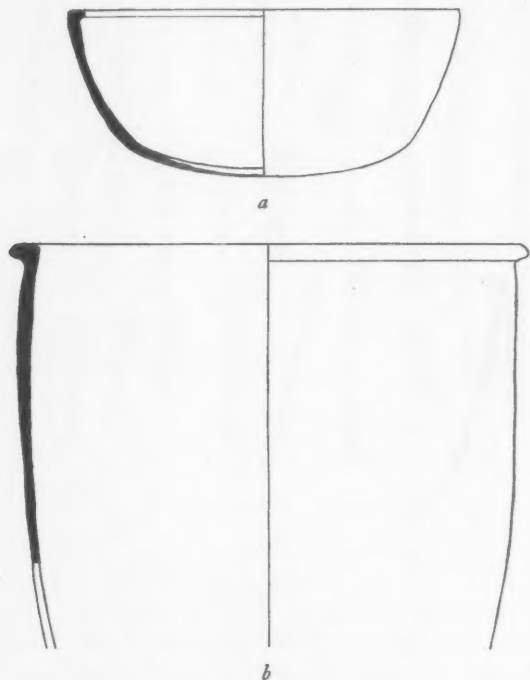


FIG. 8. Restoration of vases ($\frac{1}{4}$).

every size with vertical or slightly convex walls. In some of the largest examples, as in fig. 8, *b*, it is difficult to understand how such large vases could have been built up out of such poor material without inevitable danger of collapse. Other sherds with heavy rolled rims and a faint curve in the wall below probably belong to round-bottomed bowls (fig. 7). Another certain restoration with an inner lip is an almost hemispherical bowl, about $9\frac{1}{2}$ in. in diameter (fig. 8, *a*). The best modelling has been attained in round-bottomed bowls, as in pl. LIII, 2, *c*, where a carefully moulded rim has been set on to a shallow concave neck which is joined to the

rounded body by a gentle carination. Some well-potted sherds have the same hollow neck (fig. 6). Of the two small restored vases (pl. LIII, 2, *a* and *b*) the plainer example with two vertical loop-handles has a neatly rounded rim which overhangs the interior of the mouth and has a sharp ridge below on the outside. It is $3\frac{1}{2}$ in. high and 5 in. at its greatest diameter. The more elaborate example, $3\frac{3}{8}$ in. high and $4\frac{1}{2}$ in. in diameter, is of the black sandy material noticed above. It too has a neatly made rim, but decorated with diagonally incised grooves. Below a hollow neck the low carination is decorated in the same manner and bears two small perforated lugs.¹ Certain small sherds, such as fig. 6, 1, come from perfectly straight-sided vases, evidently of no great size. In size the pottery so far discovered ranges from small pots of 2 in. to 4 in. in diameter up to huge vessels, 15 in. or more across. The vertical height is only ascertainable in some of the smaller vases.

Decoration (pl. LII, 2). Either completely absent or remarkably restrained in character. Where employed on the body of the vase it occurs as rows of diagonal incisions or punctuations on the carination of the bowls (*e*, *g*, *i-l*, and pl. LIII, 2, *c*); rows or panels² of punctuations or incisions (*a-d*, *f*, *h*, *k* and *m*, and fig. 7, *a*) or faint vertical grooves (*n* and *o*). A horizontal band in relief round the body of the vase is found alone or associated with a line of punctuations above and below (*d*). Vertical fluting occurs on one sherd (*p*). More attention seems to have been paid to the rims. The commonest type is diagonal lines in cord-technique (*h*), particularly on the large rounded rims; diagonal or transverse grooves are more frequent on flatter types. In one case the effect of regular fluting³ has been produced (*q*). Lines of incisions or faint transversely incised lines are less common. Comb-ornament also occurs rarely. On sherds of a small well-made vase it has been carefully executed with a comb of eight teeth (e. g. on *n*). The use of two

¹ This vase serves to corroborate Mr. Cunnington's dating of the remarkable specimen from Crendon, Bucks. (Stourhead Collection, Devizes Museum, *Wilt. Arch. Mag.*, xxvi, 317). Except for some slight variations it might well be the upper half of the Crendon vase, which is obviously modelled on two vases, the one half inserted in the mouth of the other. Nor does the resemblance stop at this point. In reply to a request for details, Mrs. Cunnington has kindly sent me the following particulars: 'Height, 11 in.; rim diameter, $6\frac{1}{2}$ in. The paste in fracture is a blackish grey and fairly fine. It is mixed with sand (I think); at least it has specks of an angular whitish material (quartz?) and grains of mica. I doubt very much if the ornament is actually cord-impression, the individual depressions are too angular.'

² Cp. Bicker's Houses, Isle of Bute (*Proc. Soc. Ant. Scot.*, xxxvii (1903), 26, fig. 4).

³ Cp. Glecknabae, Isle of Bute (*ibid.*, 48, figs. 20-21), and the Largie vase (*supra*, p. 453, n. 1).

kinds of decoration on the same rim, longitudinal lines of incisions and transverse grooves, occurs here and is known from other neolithic pottery. A parallel to the present pattern occurs on a rim from Beacharra cairn, Kintyre,¹ but in that case punctuations take the place of the incisions, and the transverse design has been made with a comb of thirteen teeth. One small fragment of a rounded rim shows rows of small vertically arranged incisions, while two other sherds (*h* and *m*) have vertical lines of incisions below the rim, on one of them in gently curving lines $1\frac{1}{2}$ in. apart, an excellent example of the restraint which the makers of this pottery observed in the use of decoration (*h*).

The discovery of pottery assignable to a pre-beaker period is up to the present an event rare enough in this country. Indeed, it is only in recent years that it has been recognized in sufficient quantities to admit of some discussion of its origins and its relations to continental material, nay more, that it has become even possible to make some distinctions and divisions within the British material itself. Recently such an attempt has (in my opinion quite unsuccessfully) been made by Menghin to classify British neolithic pottery into two periods.²

To the earlier class he has given the name 'Grimston-keramik', called after the bowls found by Mortimer in a pit-dwelling below a long barrow on Hanging Grimston Wold, East Riding, Yorks.³ In this class we should need to include pottery from Dorset, Wilts., Gloucestershire, elsewhere in Yorkshire, Ireland, Scotland, in addition to the finds from Abingdon.⁴

Menghin's later class is named 'Peterborough-keramik' after

¹ Cp. Glecknabae, Isle of Bute (*Proc. Soc. Ant. Soc.*, xxxvi (1902), 108, fig. 35).

² Hoernes-Menghin, *Urgeschichte der bildenden Kunst*, 3^e Aufl., p. 717-18.

³ *Forty Years*, 102, figs. 248-9.

⁴ Examples are:—Dorset: Handley Hill, Pitt-Rivers, *op. cit.*, pl. 294, 14; pl. 298, 4. Wilts.: Norton Bavant, *supra*, p. 452, n. 2; Kingston Deverill, Abercromby, *B.A.P.*, ii, fig. 465; Knap Hill, *Wilts. Arch. Mag.*, xxxvii, 61, pl. nos. 13-15; Lanhill Barrow, *ibid.*, xxxvi, 305; Wexcombe Down, *Proc. Soc. Ant.*, 2 s., xxxi, 90, fig. 5; and many other sites represented by fragments in Dvizes and other museums. Gloucs.: Eyford, Crawford, *The Long Barrows of the Cotswolds*, 96; and many other barrows (see Index under Pottery, *passim*). Bucks.: Crendon, *supra*, p. 455, n. 1. Somerset: near Cheddar, *Excavations at Chelm's Combe, Cheddar* (*Somerset Arch. and N.H. Soc.*), 18, figs. viii and ix; Yorks., East Riding: Mortimer, *op. cit.*, figs. 14, 15, 65. Ireland: Dún Droma, co. Louth, *supra*, p. 452, n. 2. Larne, Ashmolean Museum (Antrim Coll.) 1886, 5710; Scotland: Arran, *Proc. Soc. Ant. Scot.*, xxxvi, 66 *seq.*, figs. 6, 10, 12?, 17, 30-36; Bute: *ibid.*, xxxviii, 17 *seq.*, figs. 4-7, 20-21; Argyll: Auchnacree, Abercromby, *B.A.P.*, i, pl. XLII, 214a; Largie, *Proc. Soc. Ant. Scot.*, xxxvi, 137, fig. 51. Wales: Port Darfach, Abercromby, *B.A.P.*, ii, fig. 268 (a derived type with Bronze Age ornament).

The Scotch and Irish group present some peculiar, evidently local, features.

our Fellow Mr. G. W. Abbott's discoveries at Fengate, Peterborough,¹ and with these are to be classed the bowls from the Thames Valley, Gloucestershire, and Northumberland; sherds from the Thames, from Dorset, Wilts., Northants, Oxfordshire, Yorkshire, and Northumberland.²

To this list, in further proof of what has already been often demonstrated, namely, the late neolithic or chalcolithic date of this second group from its association with beaker ware, I would add the bowl found in the round barrow adjoining Arbor Low, Derbyshire (Sheffield Museum).³ It is very closely allied to the Peterborough type, with deep grooved neck and 'maggot' ornamentation, and must certainly, like them, have had either a very small base or even a round bottom, since the lower part of the vase as seen, for example, in Abercromby's figure, is entirely a modern restoration in plaster and almost certainly incorrect.

Menghin's dating of the Hanging Grimston bowls is not in itself convincing, since no proof exists that the barrow was not erected over the dwelling-place of a dead contemporary of the builders.⁴ Some better basis for his dating must be found before it can be accepted. The material from Abingdon points to a different interpretation of the evidence.

In the first place the most distinctive of the forms found there, the carinated round-bottomed bowl, with heavy rim and hollow neck, is manifestly closely allied to the carinated bowl associated with megaliths from Portugal to Brittany and farther north along

¹ *Archæologia*, lxii, 352 seq., and *Antiq. Journ.*, ii, 220 seq.

² Surrey: Wisley, *Journal*, iv, 41. R. Thames: Mortlake, *Archæologia*, lxii, pl. xxxvii, fig. 3, and British Museum; Putney, *Antiq. Journ.*, iv, 15, pl. xxxviii, 2; Hedsor, *Antiq. Journ.*, i, 316; Mongewell, *Archæologia*, lxii, pl. xxxviii, 2-3; Wandsworth, *ibid.*, lxix, 11, fig. 9; Hammersmith, British and London Museums. Dorset: Wor Barrow and Handley Hill, Pitt-Rivers, *loc. cit.*, pl. 261, 10, 11, 15-17; pl. 294, 2, 3, 5, 11 and 13; and pl. 298, 8. Wilts.: West Kennet, *Archæologia*, xxxviii, 418, figs. 14-17. Oxon.: Asthall, *Antiq. Journ.*, ii, 236, fig. 15. Northants.: Astrop, *Report Oxfordshire Arch. Soc.*, 1912, pp. 114-18 (with two plates). Gloucs.: Pole's Wood, South Barrow, Swell, Crawford, *op. cit.*, 128. Yorks., East Riding: Mortimer, *op. cit.*, figs. 141-2, 219 and 335? Northumberland: Ford Castle (two bowls), Red Scar Bridge, Ford, and Alnwick (British Museum).

Sherds from Grime's Graves, Norfolk, and Grovehurst, Kent (British Museum), belonging to plain rough pots with plain rim and a row of largish perforations below the rim, the latter found with flint implements (one a sickle-knife) and flint debris it is not easy to associate with either of the above classes (*Arch. Cantiana*, xiii, 122). The same holds good of sherds from Icklingham, Suffolk, found on an occupation-floor with flints (Sturge Coll., British Museum). The pottery of the two first finds can, Mr. Kendrick tells me, be exactly paralleled from Hanover.

³ J. Bateman, *Vestiges*, 64-6; Abercromby, *B.A.P.*, ii, pl. XLII, p. 214.

⁴ See V. G. Childe, *The Dawn of Civilization*, 292, n. 2, on a similar phenomenon in Bute.

the Atlantic shores to Arran, Bute, and Argyll.¹ The example from Dún Droma,² though not directly connected with any megalith, comes from a country rich in such remains, while the pottery from the megaliths of the Orkneys is the ultimate expression of the same class.

One feature of the Abingdon pottery particularly bears out the above contention, namely, the use of ring-handles. This is a trait by no means common in west-European pottery of this period. Menghin is careful to note that on the Camp de Chassey vases the type of handles employed are mainly vertical tubes and small perforated lugs.³ To these may be added small ledge-handles, but ring-handles, whether vertical or horizontal, seem to be unknown. In the pottery of the Portuguese megaliths, and more especially what appear to be the later examples of the passage-graves as contrasted with the megalithic tombs,⁴ vertical ring-handles are of common occurrence, e.g. in the dolmens of Forles and Juncães, particularly the latter. Moreover, it is from the dolmen of Juncães that there come two-handled round-bottomed vases (e.g. *Arch.*, xx, 219, fig. 11, third row), which, in addition to a deep hollow neck, have the carination decorated with a band of diagonal incisions in exactly the same manner as some of the Abingdon vases. Some ledge-handles also occur.

It is true that the Portuguese vases do not exhibit the well-marked rim of the British pottery, but it is making its appearance in southern France,⁵ and in Brittany signs are not wanting that, though the rim is still not strongly marked in the plainer pottery, it has begun to make its appearance.⁶ The fact that the rim is there most pronounced in pottery decorated in the Camp de Chassey manner points to the variety of influences at work in Brittany,⁷

¹ *Proc. Soc. Ant. Scot. loc. cit.*

² Macalister, *op. cit.*, fig. 75.

³ Déchelette, *Manuel*, i, fig. 202, nos. 16 and 19.

⁴ *Archæologia*, lxx, 219, fig. 11.

⁵ *Proc. Soc. Ant. Scot.*, xxxvi, 178, pl. III, fig. 2.

⁶ P. du Chatellier, *La poterie préhistorique*, pl. 1, 3, and 8; viii, 7; and iv, *passim*. The hollowed necked bowl with decorated carination also appears there.

⁷ This occurs in a large class of decorated pottery in Brittany which is intimately connected with the Champ de Chassey group. Apart from that already noted in du Chatellier's work it has been found in large quantities by Messrs. Peycquart and le Rouzic at Er Lannic, gulf of Morbihan, and amongst it examples of the so-called 'vases-supports', known already by examples from Charente and from the Dolmen des Grandes Pierres, Plouhinec (du Chatellier Coll., Musée Saint-Germain), and, as is clear from the fragments figured by Déchelette (*op. cit.*, i, fig. 208, nos. 6 and 10), even from the Camp de Chassey itself. Clearly there was, as Childe has remarked, a movement from central Europe, and that down the Loire. It was this movement rather than the so-called 'prospectors' which was responsible for the development of the Grand Pressigny flint, as shown by its occurrence at Er Lannic. Its effects were probably more lasting on British ceramic than even the Abingdon pottery would

which, by the time they reached these islands, had blended into a single scheme of ceramic form and decoration reinforced by other influences, such as the handles coming possibly direct from the Iberian peninsula.

In view of these manifest links with the Atlantic sea-board the nomenclature which Menghin has adopted for his first class is singularly unfortunate. These islands throughout early times were subjected to influences from every point of the compass from north-east to south-west, and it is desirable to indicate in unequivocal terms the direction from which such influences emanated. The Peterborough pottery, with its profuse decoration of thong, comb, and punctures, clearly points eastwards to northern Europe, to Denmark and the Baltic,¹ and thus a name associated with the Wash as one of the eastern gates of England is particularly apt. The term 'Grimston' pottery, with its Yorkshire associations on the other hand, might easily lead to the assumption of influences radiating from a like centre, whereas in point of fact Grimston itself lies at one of the extremities of this pottery's diffusion. I would propose, therefore, that in future it should be known as Windmill Hill pottery from the famous Wiltshire site, at which our Fellow Mr. Alexander Keiller has discovered it in large quantities.²

In the light of the knowledge available up to the present time it seems worth while to emphasize certain points for consideration as further evidence comes to light.

(1) The areas of distribution of the two classes in England itself are practically identical. The Windmill Hill class ranges from Dorset to Yorkshire and the Peterborough type from Dorset to Northumberland.

(2) They are rarely found in actual association, unless my

suggest. For it is more than likely that the highly burnished brown, black, and grey vases decorated with zigzag zones of punctuations, so different from British Bronze Age pottery, e.g. Aldbourne, Beckhampton, Camerton, etc. (Abercromby, *B.A.P.*, ii, figs. 213-17 *bis*), are the counterpart in fabric and decorative style of the Er Lannic pottery and of the little highly burnished brown cup from the dolmen of Mané Hui, Carnac (du Chatellier, *op. cit.*, pl. vii, 6), and also that in the large triangular or lozenge-shaped perforations in the Mané Hui cup or the 'vases-supports' lies the origin of the almost inexplicable openwork fabric of many of the incense-cups of southern England. To the same movement must also be assigned six arrows, almost unquestionably of Pressigny flint and French in form, from a barrow on the boundary of Fordington and Winterbourne Came parishes, Dorset (Dorchester Museum).

¹ See V. G. Childe, *op. cit.*, 289.

² As yet no report of Mr. Keiller's excavations has appeared, but apart from the priority of his discoveries the more southerly situation of this important site makes the title I suggest more appropriate.

distinction of sherds from sites in Dorset is correct. At Abingdon the Peterborough ware is represented by one worn sherd, part of a rim with a decoration of semicircles reminiscent of those on a sherd from Peterborough¹ and on the bowl from Ford, Northumberland. I cannot recall any Windmill Hill pottery among the Fengate finds.

(3) The Windmill Hill pottery is usually a mixed paste with flint grit, as at Knap Hill, or with crushed fossil-shell, as at Lanhill and Abingdon, and may be termed an upland product, while the Peterborough ware is nearly always made without grit, and has a greasy texture. It is, one might say, a typically lowland fabric.

(4) The plain, smooth Windmill Hill pottery belongs to a south-western ceramic province, and, as Mr. Kendrick has rightly stated,² is to be assigned to the builders of the long barrows, while the Peterborough class, even though it possesses certain features in common with the other, is essentially the pottery of the eastern counties accessible to influences impinging on their shores at all points from the Thames to the Tweed. The distribution of the two classes, when plotted out on the map (fig. 9), seems to indicate that the users of the Peterborough pottery gradually encroached on the territory of the Long Barrow race, and that, if not actually themselves beaker-makers, as indeed the finds at Peterborough and West Kennet might suggest, at any rate preceded that people by so little that they may be said to have initiated the conquest, which the beaker-folk completed.

In the interlocking of the two classes, as illustrated by our present knowledge of their distribution, a period in their history has already been reached well in advance of their origins. As yet we know probably as little of their precedent stages in this country as archaeologists of the mid-nineteenth century knew of the existence of British neolithic pottery of any kind.

Dating. The absolute date of the Abingdon finds is a matter of no great difficulty. Several *points d'appui* are available. Firstly, at Fengate the Peterborough pottery was found in close association with beaker-ware, in one instance at the bottom of a pit from the upper layers of which fine sherds of large beakers were extracted. At Abingdon one much worn sherd of the same neolithic ware with characteristic soapy texture has come to light.

The fragment of a flint dagger is of a moderately advanced type in which the simple leaf-shape is passing into a broad blade with a pronounced tang. In this country such daggers are accepted as belonging to the beginning of the Bronze Age (*Proc. Soc. Ant.*, xxxii, 6-20), and as Mr. Reginald Smith there points out, are

¹ *Antiq. Journ.*, ii, 229, fig. 8.

² *The Axe Age*, 13-14.



FIG. 9. Map showing distribution of Neolithic pottery.

- o = Windmill Hill class.
 x = Peterborough class.

closely connected with beakers, as shown by the absence of both in Ireland. There is also at Abingdon the phenomenon of what Mr. Smith has termed the wanton rechipping of polished axes to make other implements,¹ a phenomenon which goes hand in hand with the high-water mark of flint-chipping represented by the daggers.

The long cists of Arran and Bute, in which pottery akin to the Windmill Hill class has also been found, cannot be separated by any great interval of time from the short cists with beaker-ware. In some respects, therefore, the finds stand on the border-line of or even within the earliest part of the Bronze Age, and chronologically may be treated as chalcolithic.

In point of culture, however, matters stand on an entirely different footing. First, the pottery is certainly that of the builders of the long-barrows, but its analogues belong to the megalithic regions of the Atlantic seaboard. Its makers penetrated up through central England even to Yorkshire, and along the west coast to Scotland, a progress that demands the assumption of a considerable lapse of time. Flint daggers have been found associated with tanged and barbed flint arrows, but at Abingdon such arrow-heads are so far conspicuous by their absence, and only the typical neolithic leaf-forms are present. Up till now no beaker pottery has been discovered.

It is evident that we are here confronted by a culture with long-standing neolithic traditions, in the main linked with western France and the Iberian peninsula, but sufficiently long established in this country, not only to have penetrated deep into the country, but also to have been infected by influences from across the North Sea, if indeed we may interpret as such the flint dagger itself and the comb and puncture decoration of some of the pottery.

Further discoveries may alter the complexion of the finds, but for the moment it would seem that they represent a tribe of pure neolithic stock and culture, who (perhaps under pressure of beaker-using invaders) had been driven from the Downs, but who in their new habitat clung to the trench-making they had practised in the more tractable chalk, made their upland pottery of shell- or grit-mixed clay, and had, when occasion demanded, to return to the Downs for supplies of flint of the class to which they had been accustomed, as is demonstrated by the numerous fragments on which is present the cortex of chalk-flint as contrasted with that of pebbles from the river-gravels.

¹ Cf. Windmill Hill, *Wilt. Arch. Mag.*, xxvii, 628.

DISCUSSION

Mr. REGINALD SMITH said the present excavation seemed to be less problematic than most, and furnished some straightforward evidence. Mr. Overy's discovery of the site and the co-operation of members of the University had contributed to the success of the undertaking, and it was gratifying to hear that the lessees had been most accommodating. People living in such a trench could not have been far above the level of savages, though the date was right at the end of the Stone Age, as the re-chipped fragments of polished celts indicated. The arrow-heads were more of the leaf than the lozenge pattern, but all no doubt preceded the barbed and tanged variety of the Beaker period; and the pygmy implement might possibly be much earlier than the occupation of the trench. He was of opinion that the antler 'combs' were the stocks from which splinters for pins were detached by means of grooves made with flint points, parallels being known from the later palaeolithic caves. Of the two types of pottery, the so-called Grimston series might have analogies in Brittany and the Channel Islands, but the Mortlake type was most like some found in Finland; and contact at that date would imply navigation, which was assumed even earlier to account for the dolmen-idea in Britain. The discoveries were certainly important, but illustrated a period that was already much better known than the middle and early neolithic, on which evidence was much needed.

Mrs. CUNNINGTON said the Wiltshire sites of West Kennet and Windmill Hill had yielded some punch-marked pottery, but on the whole differed essentially from the Abingdon series; and as the sherds from West Kennet were found in the closed chamber of a long barrow with traces of the beaker, it might be presumed that Mr. Leeds' site was occupied later than the long-barrows, perhaps even in the Bronze Age, though the types remained neolithic.

Mr. CRAWFORD observed that the plan of the trench showed an uneven bottom and a short length at the end that suggested a causeway, as found at Knap Hill and Windmill Hill. In the middle of the pit he had on a casual visit noticed a number of small holes which might have been habitation sites or truncated trenches; and he hoped that steps would be taken to explore the interior. Similar antler-cores had been found at Windmill Hill and puzzled the excavators, but he could see no alternative to Mr. Smith's explanation. He could adduce evidence in support of Mr. Leeds' general remarks on late neolithic culture, and felt sure that before the end of the early Bronze Age Britain was strongly influenced from the south; for example, the incense-cups pointed to Brittany. Two influences could be detected, from the east and south respectively, acting about the same period; but more evidence was required for separating the early cultures and to determine whether the Abingdon finds were earlier or later than those at Windmill Hill. Other sites should be discovered, and more news awaited from Abingdon.

The PRESIDENT conveyed the Society's thanks to the author, and agreed that the five cut antlers could not be carding combs, as they were irregularly formed and of an unsuitable shape, but also saw difficulties in the view that they were used in making pins, as undercutting would be required. Why did the occupants live in a trench that was little more than an ashpit? They were capable of excavating a chamber, and further research would perhaps answer the question.

Mr. LEEDS replied that he had referred the Peterborough group of pottery to the Baltic, the other type of bowl coming from the south. The cut antlers would be curious implements for pin-making, and one specimen at least had the points worn down by some process. Mr. Crawford's observations no doubt referred to the return of the trench noticed in the paper, bounding the enclosure on the south.

A Late Bronze Age Urn-field at Pokesdown, Hants

By R. C. C. CLAY, F.S.A.

IN the autumn of 1926 an urn-field (fig. 1) was discovered on the site of the war-time allotment gardens on the southern edge of Little Down Common, and about 500 yards NNE. of Pokesdown Station, lat. $50^{\circ}44'5''$, long. $1^{\circ}49'13''$. Its discovery was due to the finding of urns when a new road was driven through a long strip that had been sold for building plots. About nine cinerary urns, mostly of the globular type, were found within a small area by the road-makers, and these have been preserved by Mr. Homewood, the borough surveyor. Several more were discovered on the adjoining plots when the overlying gravel was cleared away. Unfortunately many of these were destroyed, but two went to the Russell-Coates Art Gallery, one to the Bournemouth Natural Science Institute, and some fragments into private hands (figs. 2, 3, and 4).

On the 1st November excavation was begun on the ground immediately to the north of the building plots, the procedure being to clear away the whole of the top-soil and thin gravel cap down to the undisturbed sand. Col. Hawley came down on the 1st December, and his experience and practical suggestions were a great asset. Work did not cease till the 28th March, by which time the urn-field had been exhausted and the ground cleared for at least 30 ft. beyond its limits. The urn-field was found to be roughly triangular in shape with its long axis due east and west and its apex to the west. Forty-five burials were discovered. Although one distinct group was found, and those unearched by Mr. Homewood during the making of the road were apparently in a cluster, yet for the most part they were irregularly placed and conformed to no formal lay-out or plan. Of the burials, twenty-six were by cremation only and eighteen by cremation in urns. In two instances the urns were associated with food vessels. Two sunken roads were discovered, one running east and west, and the other north and south. There were no surface indications of them, due in all probability to the cultivation of the ground during the war. These worn trackways in the soft sand were evidently earlier in date than the urn-field, for two urn-burials were found in the soil above the bottom of the east and west one. The direction of this east and west track was

towards the position of the modern bridge at Iford over the Stour, where possibly there was a ford in prehistoric times. No objects were found associated with any of the burials, but in the top-soil there were flint implements, including transverse, leaf-shaped, and

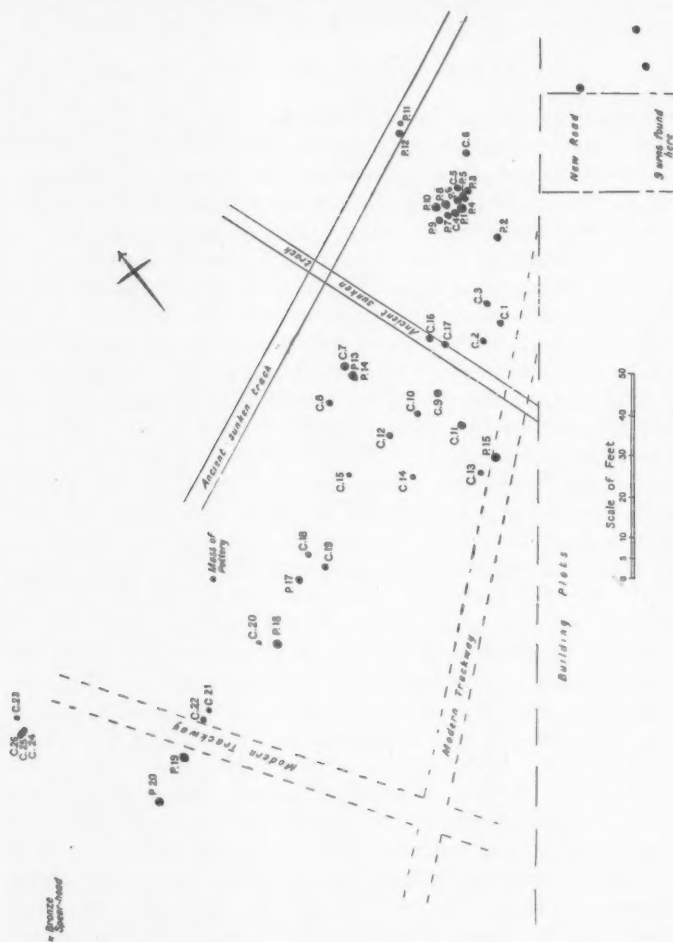


FIG. 1. Plan of the Pokesdown urn-field.

barbed and tanged arrow-heads and a solitary ochreous palaeolithic flake. There were also flakes of Greensand chert and Portland chert and several lumps of ironstone. To the west of the urn-field a bronze leaf-shaped spear-head was unearthed, while farther again to the west was a built-up hearth. Here and there a few frag-

ments of pottery lay scattered at various depths, but owing to the cultivation of the soil by the allotment holders the stratigraphy of

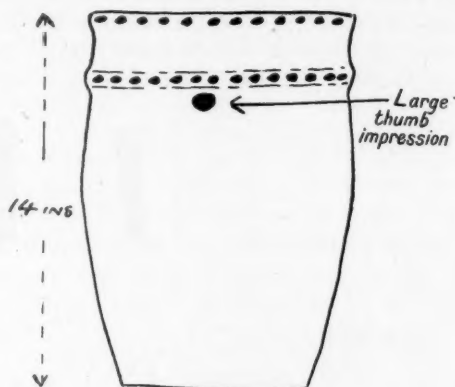


FIG. 2. Conjectural restoration of broken urn in Russell-Coates Art Gallery.



FIG. 3. Sketches of urns in private hands.

these is valueless. Under one plot there was definite evidence that the soil had been moved to a depth of some 3 ft., and that modern rubbish had been buried at that level. Some of the pottery fragments are undoubtedly Romano-British in date, one

of Early Iron Age, and most of the remainder portions of cinerary urns disturbed by the spade.

The Cinerary Urns. The eighteen urns were all lying so near the surface, the average depth of the bottom of the cists being 1 ft. 11 $\frac{1}{2}$ in., that the spade of the allotment diggers had, in most instances, damaged either the base or the rim according to whether

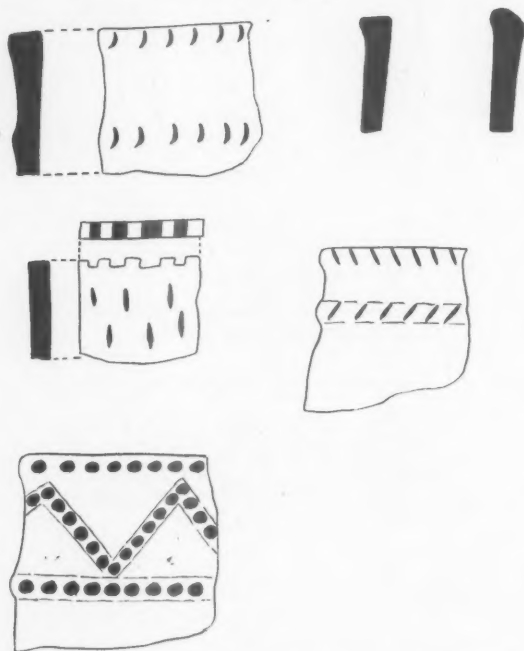


FIG. 4. Sketches of pottery fragments in private hands.

the urn stood upright or inverted. The removal of the turf during cultivation had permitted moisture to percolate through and reach the urns, and consequently they were in a very fragmentary and disintegrated condition. This was partly due to the roots of various kinds that had grown into and through the substance of the pottery, but the nature of the soil itself appeared to have a deleterious effect. Of the seventeen urns whose position could be determined, nine stood upright, seven were inverted, while one had been interred on its side. With only 56 per cent. of the urns were any cremated human bones found. These bones were in a very comminuted condition and had been thoroughly burnt. The scarcity of bones cannot be attributed to the action of humic acid

alone ; it was due to the mode of burial. In most cases the procedure was as follows : a few fragments of burnt bone were taken from the pyre and placed in the urn or in the cist, then handfuls of ashes, and finally large sticks of charcoal¹ were placed on top. Occasionally this process was reversed, and the charcoal placed at the bottom. A similar absence of bones has been noticed elsewhere with burials of the same date, and reference may be made to barrow 39, Launceston Down,² and to barrow 14, Woodyates.³ In no instance at Pokesdown were enough bones found to represent the complete skeleton of a human being. Those urns which were inverted and whose upper portions were more or less intact, had not lost any of their ashes into the cist in which they stood. This suggests that the mouths of the urns were covered with a cloth or skin before they were inverted, but no traces of any such material were found, and there were no impressions of any cloth on the bottom of the cist. In the secondary urn-field in the Woodminton barrow⁴ most of the urns were buried with a flat stone covering them and level with the turf. Thus those urns were evenly spaced, as the position of former burials could be seen. At Pokesdown, on the other hand, there was no covering except earth to the burials and consequently they were placed more or less haphazard, and in one instance (P. 4) an earlier urn was cut through when a later one was interred. No objects were found associated with any burial.

The Cremations. Most of the twenty-six cremation burials consisted of ashes in carefully made cists ; in four instances only were any cremated bones found with them. These cremations were irregularly interspersed with the urn burials, and like them conformed to no definite lay-out or plan. The shape of some cremations suggested that they were turned out of urns ; a supposition that is strengthened by the finding of an inverted base of an urn on top of cremation no. 5. None of the walls remained although this burial had never been disturbed. The only satisfactory explanation is that the ashes were carried in an urn which had a hole in its base and that the urn was made serviceable by placing the base of another urn inside it, in the same manner as crocks are placed over the central hole of a flower pot. When the contents of the urn were emptied the loose fragment would fall out. Another suggestion is that the base of an urn was intentionally placed in the cist—a practice that was mentioned as

¹ Dr. Woodhead of Huddersfield has examined the charcoal. All the specimens were of oak.

² Warne, *Celtic Tumuli*, p. 51.

³ Hoare, *Ancient Wilts.*, p. 241.

⁴ *Wilts. Arch. and Nat. Hist. Mag.*, xliii, p. 313.

having taken place in the secondary urn-field outside Barrow 24, Handley Down.¹ The depths of the cremations at Pokesdown averaged 1 ft. 10 in. The cists were mostly barrel-sided and their bottoms were rounded.

The Bronze Spear-head (figs. 5 and 6). This leaf-shaped bronze spear-head was found at a depth of 1 ft. 4 in., fifteen yards to the west of Urn 20. It was unconnected with any burial and had no associated objects. The spear-head lay roughly north and south. To the south of it there ran a hollow pipe in the compact soil, representing a cast of the disintegrated shaft. This cast was exactly 7 ft. in length with a slight kink or break at a distance of 3 ft. from the butt. The diameter of the cast was just under 2 in. If allowance is made for some falling in of the top of the walls of the cast after the disappearance of the wood, the diameter of the original shaft can be estimated as well under 2 in. There was no ferrule. The butt was 2 in. nearer the surface than the head, and the middle of the shaft was the mean of the two, thus corroborating the diagnosis that the pipe was a cast of the shaft. Col. Hawley, Mr. Estyn Evans, and Col. Anderson were present, and agreed with Mr. Young and myself as to the nature of this hole. The cast lay upon what appeared to be an old surface line, corresponding to the level of the old sunken tracks which were, as has been stated above, earlier in date than the urn-field. The spear-head was 8 in. long, the blade $6\frac{1}{2}$ in. Owing to weathering the blade has lost much of its original shape and is now $1\frac{1}{2}$ in. at its widest place. The socket is plain, tubular, and reaches to the tip. At a distance of $1\frac{1}{4}$ in. above the base there are two opposite rivet holes in the same plane as the blade. All that remained of the wooden shaft was some fine brown powder in the socket. As no trace of any bone or bronze rivet was found, it can be assumed that the rivet employed was one of wood. This specimen belongs to the latest type of bronze spear-heads, frequently associated in hoards with swords and socketed celts. It is common on the Continent.

The Hearth (pl. LIV, fig. 1). This hearth was found outside the western limits of the urn-field. It consisted of a basin-shaped excavation in the sand, the top of which on the north and west sides was packed round with large pebbles. The sides of the hearth consisted of the natural sand baked hard by the fires for a thickness of 3 in. The centre was filled with a mixture of charcoal, black ash, and burnt flint. There were no traces of either bone or pottery. The hearth was roughly circular with dished sides and bottom, the diameter of the

¹ *Ex. Cranborne Chase*, iv, p. 148.

top being 16 in. and the depth in the centre 5 in. The top of the hearth was 1 ft. 7 in. beneath ground level, and appeared to be on the old surface line which was earlier than the urn-

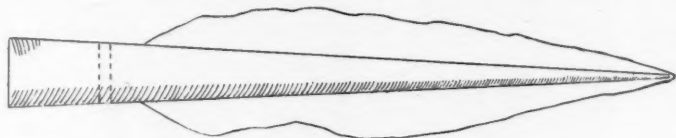


FIG. 5. Bronze spear-head ($\frac{1}{2}$).

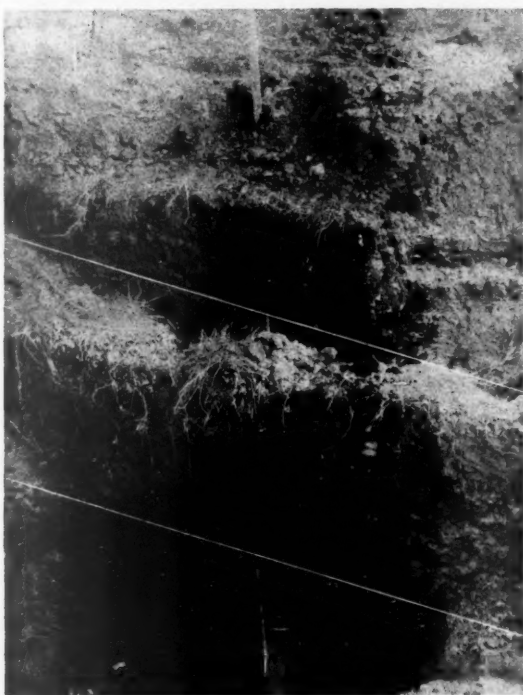


FIG. 6. Position of shaft of spear-head. The upper peg represents the point of the spear-head, the lower peg the butt of the shaft. The canes lie in the hole in the ground left by the shaft. The white lines show the position of an old turf line.

field and contemporary with the spear-head. A few small fragments of pottery were found due south of it, and a leaf-shaped arrow-head of flint 6 ft. to the north at a depth of 1 ft. 6 in.

Lying some 2 ft. or 3 ft. to the west were large pebbles blackened by fire that had evidently been used as packing stones.

Details of the Urns.

P. 1 (fig. 7). Large urn with almost straight sides conforming to the bucket type. Height $14\frac{1}{2}$ in., diameter at rim $11\frac{1}{2}$ in., diameter at base

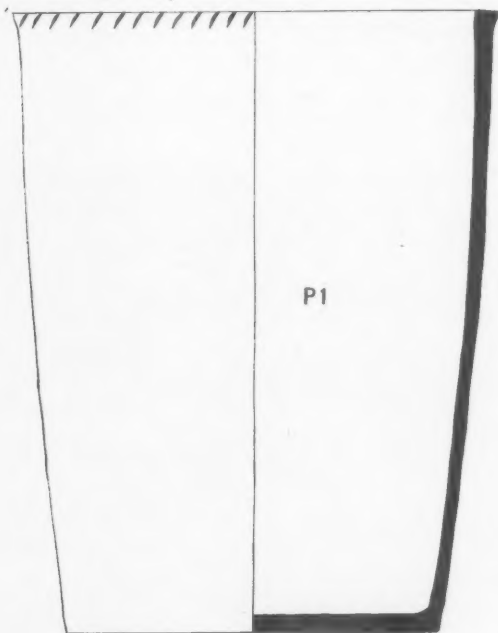


FIG. 7. Urn, P. 1 ($\frac{1}{4}$).

$8\frac{3}{4}$ in. Rim slightly expanded, flat-topped, and ornamented with a row of slanting notches on its outer edge cut with a sharp knife. Colour medium brown, rough surface, paste badly baked and containing a small quantity of grit. There is a long crack on one side with repair holes. This crack took place before the urn was buried, and illustrates the softness of the pottery even when new. The whole urn is oval in cross-section, the crack occurring at one of the apices; and the flatter sides of the urn show broad depressions corresponding to the position of the hands of the person who carried it at the time of the flattening and cracking of the urn. One depression is near the rim, while that on the opposite side is near the base. Found inverted in a well-cut cist with basin-shaped bottom. Depth of cist 1 ft. 9 in., diameter of cist 1 ft. 10 in. The urn contained the bones of an adult and some ashes.



FIG. 1. The Hearth



FIG. 2. Urns P. 9 and P. 10

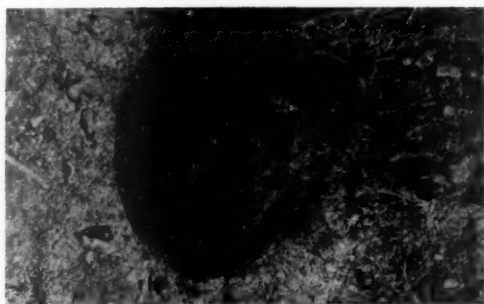


FIG. 3. Urns P. 13 and P. 14

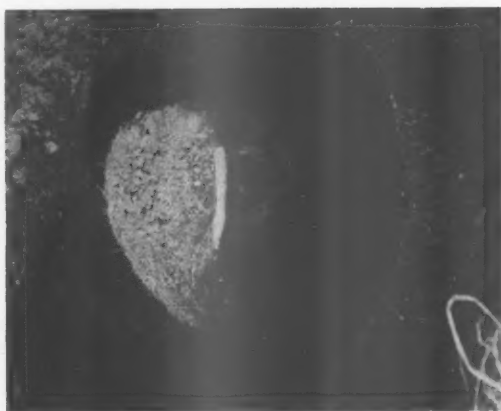


FIG. 3. Urn P. 20



FIG. 2. Crenation C. 15

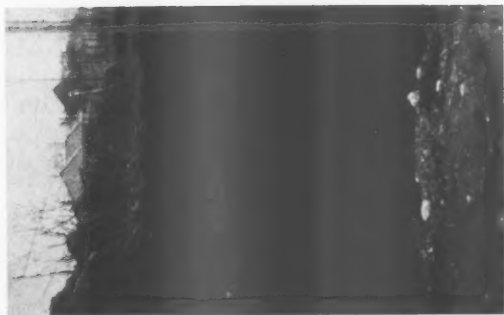


FIG. 1. Urn P. 18

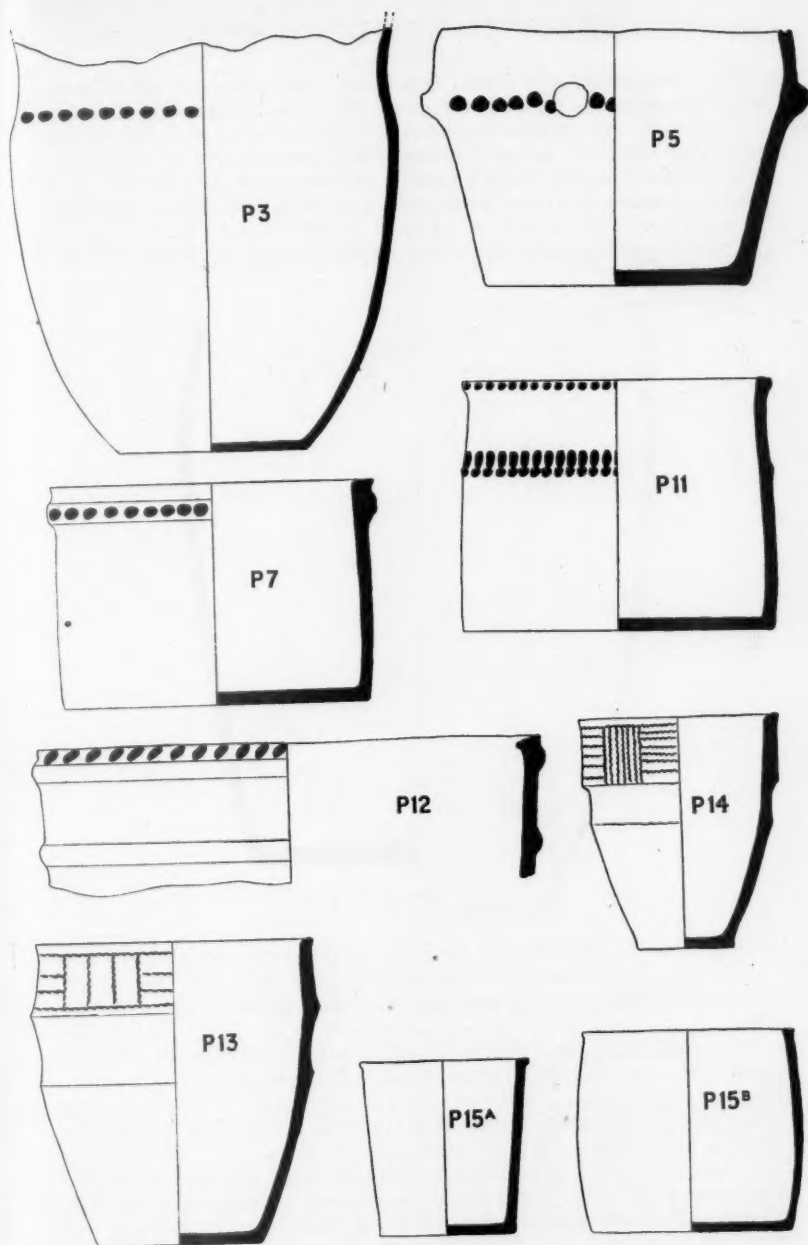


FIG. 8. Urns ($\frac{1}{4}$).

P. 2. Fragments of a barrel urn, found with a heap of ashes in an area from which workmen had removed the top-soil for road-making.

P. 3 (fig. 8). An atypical specimen of the globular variety. Rim missing. Concave neck, rudimentary shoulder, and sharply curving sides. Row of shallow and small finger-tip impressions above the shoulder. Dark brown, rough surface, paste gritty and friable. Height of specimen 10 in., diameter of base $4\frac{1}{2}$ in. Found upright in cist 1 ft. 10 in. deep. Contained bones of adult and ashes. This urn had originally an over-

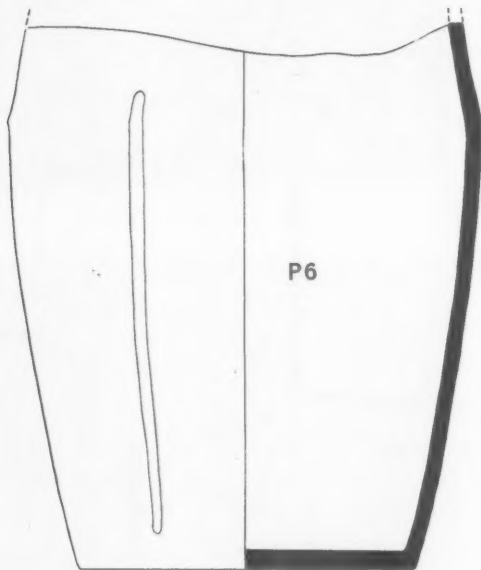


FIG. 9. Urn, P. 6 ($\frac{1}{4}$).

lapping crack on one side near the base, causing a considerable amount of distortion. The crack has been rectified with the result that, in the restored specimen, there is now a widely open crack on the opposite side.

P. 4. Portion of the walls and base of an upright barrel urn cut through by the cist that contained P. 3. Depth of cist 1 ft. 9 in., diameter of cist 1 ft.

P. 5 (fig. 8). Roughly made urn approximately $6\frac{1}{4}$ in. in height, diameter at rim 8 in. to $8\frac{1}{2}$ in., diameter of base $6\frac{1}{4}$ in. Rim thin, uneven and ornamented on top with finger-tip impressions. Below the rim the sides curve convexly outwards for $1\frac{1}{2}$ in. to reach a slight shoulder, then fall in a straight line downwards and inwards to the base. At the shoulder there are six unequal and unequally spaced bosses, four of which have a finger-tip impression on their crests, while between them is a wavy line of finger-tip impressions. Medium brown in colour, surface rough

and uneven, paste badly baked and nearly free from grit. Found inverted over ashes only. Depth of cist 1 ft. 11 in., diameter of cist 1 ft. 2 in.

P. 6 (fig. 9). Urn of the barrel type, rim and much of the walls missing. Height of specimen $12\frac{1}{2}$ in., diameter of base approximately $7\frac{3}{4}$ in. Slightly concave neck, faint shoulder, barrel sides. Four unequally

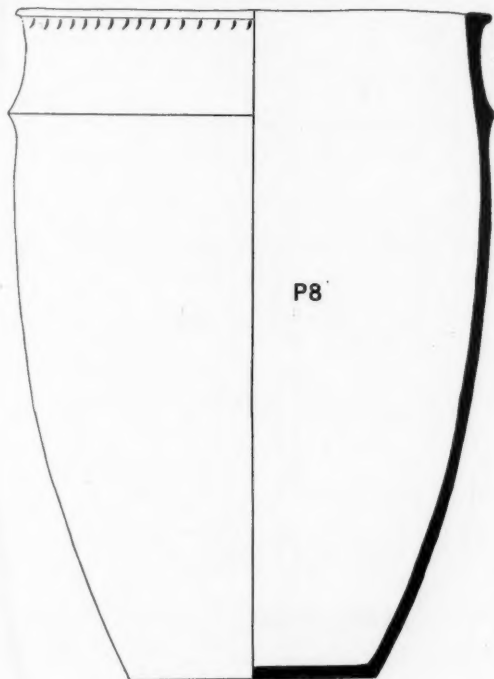


FIG. 10. Urn, P. 8 ($\frac{3}{4}$).

spaced, vertical, moulded ribs run from the middle of the neck to near the base. Colour dark brown, surface fairly smooth, paste gritty. Found upright in cist 1 ft. 9 in. deep. Contained ashes only.

P. 7 (fig. 8). Urn of the low flower-pot type. Height $5\frac{3}{8}$ in., diameter at rim $7\frac{1}{4}$ in., diameter of base $7\frac{3}{4}$ in. Flat-topped rim, close beneath which is a thick moulded fillet ornamented with a row of finger-tip impressions. Sides almost vertical. Colour dark brown, surface rough, paste gritty and friable. Found inverted over ashes only in a cist 1 ft. 9 in. in depth. A similar urn was found in a barrow at Milborne St. Andrew, Dorset, and is now in the British Museum.

P. 8 (fig. 10). Barrel urn. Rim expanded, flat-topped, and rounded at the outer edge. Height 16 in., diameter at rim 11 in., diameter of base 6 in. Neck concave, $2\frac{1}{4}$ in. in depth, separated by an angular moulded

fillet from the convexly sloping sides. Row of finger-nail impressions immediately below the rim. Colour dark brown, surface fairly smooth, paste gritty and friable. Found inverted over burnt bones of a child in a cist 2 ft. 3 in. deep and 1 ft. 9 in. in diameter.

P. 9 (fig. 11, and pl. LIV, fig. 2). Urn of the barrel type with ex-

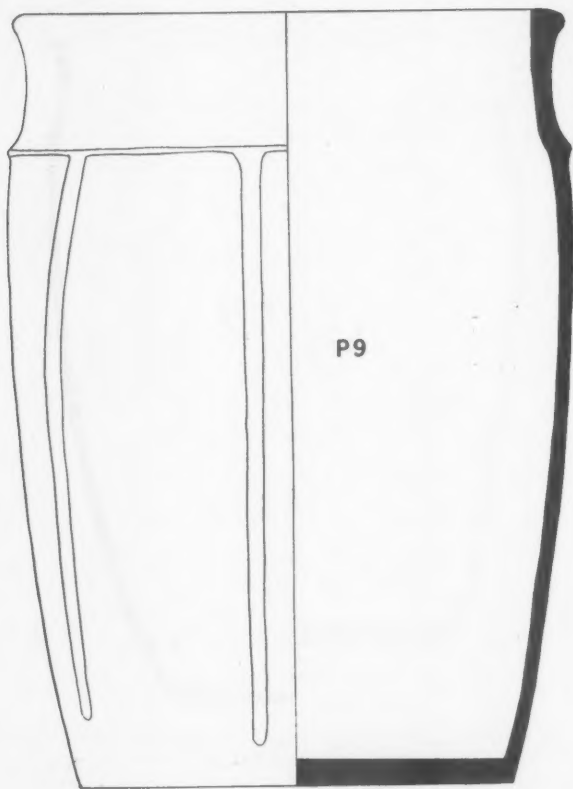


FIG. 11. Urn, P. 9 ($\frac{1}{4}$).

panded rim, concave neck, and barrel sides. Slight horizontal moulding along the shoulder from which drop seven stout moulded ribs. These are not all vertical, some taking a winding course. There is a long crack on one side with repair holes. Height $18\frac{1}{2}$ in., diameter at rim $13\frac{1}{2}$ in., diameter of base $10\frac{1}{2}$ in. Colour dark brown, surface rough, paste gritty and friable. Inverted over ashes only in a cist 2 ft. 7 in. in depth.

P. 10 (fig. 12, and pl. LIV, fig. 2). Barrel urn with expanded and flattened rim, and concave neck $1\frac{1}{4}$ in. in depth, below which is a

slight angular moulded fillet from which the sides drop in a gentle curve. Height 14 in., diameter at rim $11\frac{1}{2}$ in., diameter of base $7\frac{1}{2}$ in. Colour dark brown, black core with large particles of grit in the paste. Found upright in a cist 2 ft. 2 in. in depth and 1 ft. 6 in. in width. Ashes only.

P. 11 (fig. 8). Urn of the flower-pot variety. Height 6 in., diameter at rim and at base $7\frac{1}{2}$ in. Rim flat-topped and slightly expanded.

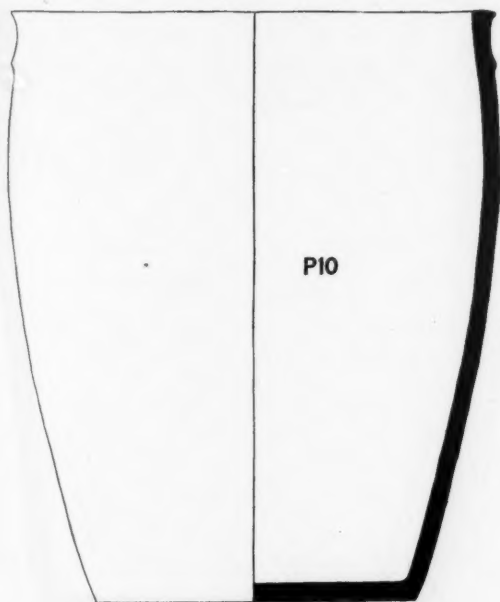


FIG. 12. Urn, P. 10 ($\frac{1}{4}$).

Slightly concave neck, faint shoulder, and vertical sides. Along the outer edge of the rim is a row of impressions that might have been made with a very small finger. The shoulder bears a similar decoration, above which is a line of short, shallow, and wide grooves due to the same instrument that made the circular marks. Colour dark brown, surface rough, paste gritty and badly baked. Found in a cist 1 ft. 6 in. deep and 1 ft. wide, inverted over ashes only.

P. 12 (fig. 8). Barrel urn, most of the walls of which had been disturbed by cultivation. Rim expanded and ornamented on the outer edge with a row of finger-tip impressions. Immediately below this runs a plain moulded fillet, and a second fillet at a depth of $2\frac{1}{2}$ in. beneath the rim. Diameter at rim 12 in. Found inverted over ashes and a few fragments of burnt bones. The cist in which it stood was 1 ft. 6 in. deep and situated over the sunken track, thus proving that the track was earlier than the burials.

P. 13 (fig. 8, and pl. LIV, fig. 3). Urn of the collared type, $7\frac{1}{4}$ in. in height, $6\frac{1}{2}$ in. in diameter at rim, and 4 in. in diameter at the base. Rim slightly bevelled off inwards, collar $1\frac{3}{4}$ in. deep and ornamented with alternating panels of vertical and horizontal lines in cord technique. Below the collar is a concave neck $1\frac{3}{4}$ in. in depth. From a faint shoulder the sides taper to the base. Colour reddish-brown. The

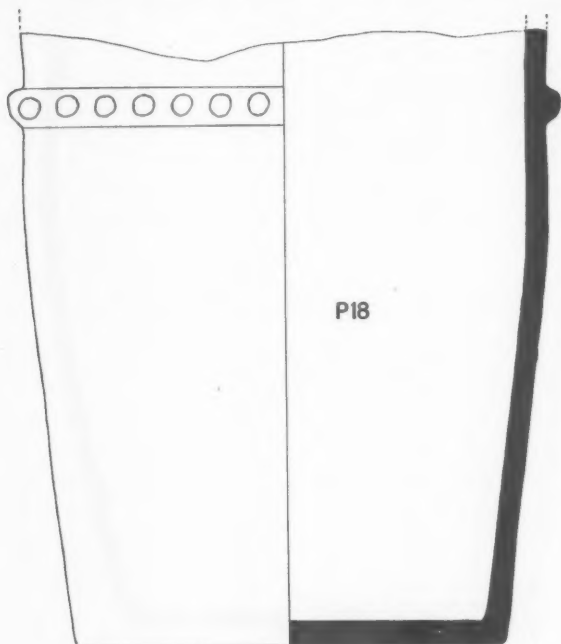


FIG. 13. Urn, P. 18 ($\frac{1}{4}$).

better preserved portions of the vessel display a smooth outer surface. Paste soft, badly baked, and containing practically no admixed grit. The urn lay on its side close to P. 14, and had been pressed almost flat by the weight of earth, but the base was intact and apart from the vessel. The base had been made separately; the ends of the walls where they made junction with the base were rounded and had the appearance of a rim. Found on its side in an irregular cist 2 ft. 4 in. deep. The urn contained ashes only, but several large pieces of charcoal lay on the upturned side of the vessel.

P. 14 (fig. 8, and pl. LIV, fig. 3). Small collared urn found by the side of P. 13. It contained neither ashes nor bones and evidently functioned as a food-vessel. Rim rounded and slightly bevelled inwards. The collar, $1\frac{1}{2}$ in. in depth, is ornamented with alternating panels of vertical and horizontal lines in cord technique, similar to P. 13. The

actual design has been made with a bone tool. Neck concave, $\frac{3}{4}$ in. in depth, below which the sides curve gently inwards with a slight spreading near the base. Colour dull brick, surface uneven to the touch, paste badly baked and almost free of grit. Height $5\frac{1}{2}$ in., diameter at rim $4\frac{3}{4}$ in., diameter of base $2\frac{1}{2}$ in. The cist these urns

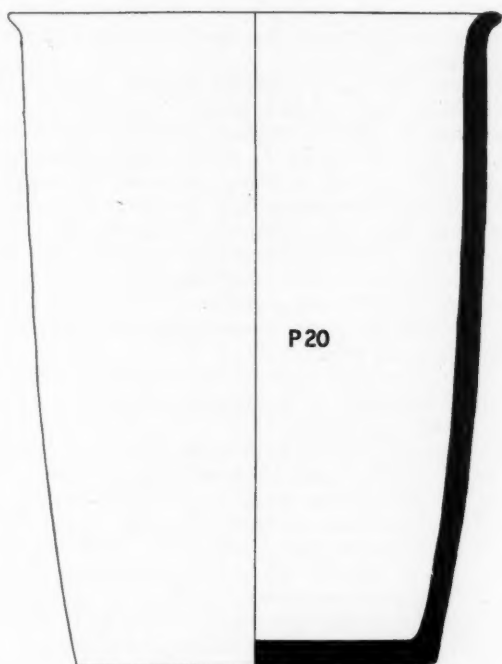


FIG. 14. Urn, P. 20 ($\frac{1}{2}$).

were lying in was somewhat oval, suggesting that they were buried in the prone position.

P. 15*a* (fig. 8). Food-vessel found with another (P. 15*b*) together with P. 16 close under a modern trackway. Although their position had prevented injury by cultivation, yet the weight of wheeled traffic had caused much crushing of the vessels. Height $4\frac{1}{8}$ in., diameter at rim 4 in., diameter of base $2\frac{1}{2}$ in. Rim flat-topped and in some parts pushed over by the hand that flattened it. Walls straight and tapering to the base. Colour dark brown, texture rough, paste contains a considerable quantity of grit. Depth of cist 2 ft. A tumbler-shaped food-vessel was found with barrel urns in Barrow 2, Woodminton.¹

P. 15*b* (fig. 8). Food-vessel found with P. 15*a* and P. 16. Height

¹ *Wilt. Arch. and Nat. Hist. Mag.*, xliii, p. 321, pl. iii, fig. 3.

4 $\frac{3}{4}$ in., diameter at rim 5 in., diameter of base 4 $\frac{3}{4}$ in. Rim flat-topped and slightly expanded, the sides having a strongly convex curve. No ornament. Colour reddish-brown, surface rough, badly baked, paste gritty. Similar in size and shape to a vessel in Reading Museum, labelled 'Cinerary urn from Taplow, near Maidenhead'.

P. 16. This urn is represented by only a few fragments near the base, and it is impossible to determine its form. Ashes and burnt bone were lying upon the base indicated that the urn stood upright. Found with P. 15 *a* and P. 15 *b*.

P. 17. This urn was badly crushed and but little remained of it. It was of the barrel variety and originally stood upright. Contained ashes and a few burnt bones. Depth of cist 2 ft., diameter of cist 1 ft.

P. 18 (fig. 13, and pl. LV, fig. 1). Bucket-shaped urn, rim missing. Sides straight and tapering to base. A thick and irregularly made horizontal moulding ornamented with a row of deeply impressed finger-tip impressions. Above this moulding the sides are continued in the same plane as the portions below it. Height of specimen 14 $\frac{1}{2}$ in., diameter of base 10 $\frac{1}{2}$ in. Colour medium brown, surface rough and uneven, paste friable and slightly gritty. Found upright in a cist 2 ft. 3 in. in depth. Ashes and a few minute fragments of burnt bone filled up the lower half of the urn.

P. 19. A fencing post had been driven in against the side of this urn and had so much damaged it by allowing water to run into the cist, that beyond stating that the urn was of the barrel type and that it originally stood upright, little can be said. The base of the vessel lay on a layer of ashes 5 in. in thickness in a cist 2 ft. deep. Inside the remains of the urn were ashes and a few small fragments of burnt bone, and on top of this some large pieces of charcoal.

P. 20 (fig. 14, and pl. LV, fig. 3). Barrel urn with everted rim and slightly convex sides. Height 15 $\frac{1}{2}$ in., diameter at rim 12 in., diameter of base 8 $\frac{1}{2}$ in. It was too much disintegrated to restore properly, and the original condition of the outer surface is difficult to ascertain. The walls are thick, the colour medium brown, the paste very friable and almost free from grit. Found upright in a cist 2 ft. 5 in. in depth. It contained ashes and some comminuted fragments of burnt bone. There was no ornamentation.

Details of the Cremations.

C. 1. Ashes only. Depth of cist 1 ft. 10 in., diameter of cist 1 ft. Thickness of ashes 8 in.

C. 2. Ashes only. Depth of cist 2 ft., diameter of cist 1 ft. 2 in. Thickness of ashes 8 in.

C. 3. Ashes only. Depth of cist 1 ft. 6 in., diameter of cist 1 ft. Thickness of ashes 7 in.

C. 4. Ashes only. Depth of cist 1 ft. 6 in., diameter of cist 1 ft. 4 in. Thickness of ashes 6 in.

C. 5. Ashes only. Depth of cist 1 ft. 4 in. The inverted base of an urn lay on top of the ashes.

C. 6. Ashes only. Depth of cist 1 ft. 5 in., diameter of cist 1 ft. 3 in. Thickness of ashes 9 in.

- C. 7. Ashes only. Depth of cist 2 ft., diameter of cist 1 ft. 6 in.
 C. 8. Ashes only. Depth of cist 1 ft. 9 in., diameter of cist 1 ft. Thickness of ashes 6 in.
 C. 9. Ashes only. Depth of cist 1 ft. 9 in., diameter of cist 1 ft. 5 in. Thickness of ashes 9 in.
 C. 10. Ashes only. Depth of cist 1 ft. 9 in., diameter of cist 1 ft. Thickness of ashes 6 in.
 C. 11. Ashes with several fragments of burnt bone scattered on top. Depth of cist 2 ft., diameter of cist 1 ft. 4 in. Thickness of ashes 1 ft.
 C. 12. Ashes only. Depth of cist 1 ft. 7 in., diameter of cist 1 ft. Thickness of ashes 7 in.
 C. 13. Ashes only. Depth of cist 1 ft. 6 in., diameter of cist 1 ft. Thickness of ashes 8 in.
 C. 14. Ashes and some large pieces of charcoal. Depth of cist 1 ft. 10 in., diameter of cist 1 ft. Thickness of ashes 10 in.
 C. 15 (pl. LV, fig. 2). Ashes only. Depth of cist 2 ft. 2 in., diameter of cist 10 in. Thickness of ashes 6 in.
 C. 16. Ashes only. Depth of cist, which was above the bottom of the old sunken track, 2 ft., diameter of cist 1 ft. 3 in. Thickness of ashes 8 in.
 C. 17. Ashes only. Depth of cist 2 ft. 2 in., diameter of cist 10 in. Thickness of ashes 1 ft.
 C. 18. Ashes and a few large fragments of charcoal. Depth of cist 2 ft. 2 in., diameter of cist 10 in. Thickness of ashes 1 ft.
 C. 19. Ashes, charcoal, and burnt bones, the bones being minutely pulverized and for the most part on top of the ashes. Depth of cist 1 ft. 10 in., diameter of cist 1 ft. Thickness of ashes 8 in.
 C. 20. Ashes, below which were burnt bone fragments, and above which were large sticks of charcoal. Depth of cist 1 ft. 11 in., diameter of cist 10 in. Thickness of ashes 11 in.
 C. 21. A few fragments of burnt bone above a heap of ashes. Depth of cist 1 ft. 9 in., diameter of cist 10 in. Thickness of ashes 9 in.
 C. 22. Ashes only. Depth of cist 1 ft. 8 in., diameter of cist 7½ in. Thickness of ashes 5 in.
 C. 23. Ashes, burnt flints, and charcoal, most of the latter being at the bottom. Depth of cist 2 ft. 3 in., diameter of cist 9 in. Thickness of ashes 8 in.
 C. 24. Depth of cist 2 ft. 3 in. Thickness of ashes 1 ft.
 C. 25. Depth of cist 2 ft. 1 in. Thickness of ashes 11 in.
 C. 26. Depth of cist 2 ft. 3 in. Thickness of ashes 9 in.
 C. 24, C. 25, and C. 26 lay in a line east and west with C. 25 in the middle and C. 26 on the west. The three cists communicated; C. 25 was probably the oldest, and the cists of the later cremations had cut into the sides of it. They all contained charcoal, ashes, and much burnt flint, but no burnt bones. A few fragments of unburnt flint were mixed with the ashes.

Pottery Fragments. Twenty-three finds of pottery unconnected with the burials were made. Of these eleven were undoubtedly fragments struck off cinerary urns by the implements of cultivation.

They varied in depth from 1 ft. to 1 ft. 8 in. Five pieces that can be dated with certainty as belonging to the Romano-British period were found at depths of 1 ft., 1 ft., 1 ft. 5 in., 1 ft. 7 in., and 1 ft. 9 in. below the surface. Other fragments at 1 ft. 3 in. and 1 ft. 4 in. are probably of the same age. From south of the hearth came a piece of pottery with smooth red outer surface, blackened inner surface, and black gritty core. It is hand-made and evidently of the Early Iron Age. Found at a depth of 1 ft. 9 in. Other pieces at 1 ft. and 2 ft. 3 in. may be of the same date. The allotments were cultivated very deeply, most of the ground having been double-trenched. This fact renders valueless the depths of these pottery fragments as scientific data. One find of pottery, however, is of special importance. At a depth of 1 ft. 10 in., 20 ft. north of C. 20, about a double handful of shards were found in a compact mass. They are apparently not funereal, and more than one vessel is represented. They have no blackened inner surface, and no ashes, charcoal, or bones were associated with them. They were evidently buried, but not in a prepared cist. In the urn-field outside Barrow 24, Handley Down,¹ there was a similar burial of pottery fragments.

Summary and Conclusions. The urns from this flat cemetery are of divers types, all of which, however, have long been recognized as belonging to the Late Bronze Age. Barrel-shaped, bucket-shaped, globular, and flower-pot urns have been found, the first predominating. From the north-east portion of the cemetery came typical globular urns which are now in private hands, and our P. 3 appears to be a debased example of the same type. The characteristic ornament on the barrel and bucket urns is a row of finger-tip or finger-nail impressions often on a raised moulding; but sometimes the impressions were made with a bone or metal implement instead of with the finger. The most interesting specimens are P. 13 and P. 14, both of which are typical specimens of the late collared variety. Their presence here proves that the barrel-bucket-globular urns followed directly on the Middle Bronze Age. The design on their collars of alternating panels of vertical and horizontal lines in cord technique is similar to that on the fragment of collared urn from the Deverell barrow. This design is common in the north of England, but in the south can be ascribed to the very end of the Middle Bronze Age. The barrel and bucket urns ornamented with finger-tip impressions are essentially Hallstatt in type, their exact counterparts being found in the High Pyrenees—the resting place of another wave of invaders from their common home in Central Europe. These

¹ *Ex. Cranborne Chase*, iv, p. 148.

urns are so dissimilar in shape, decoration, and quality from those of the Middle Bronze Age, and their method of shallow burial as multiple secondaries in barrows or else as communal interments in flat urn-fields is so unlike the customs of the Middle Bronze Age, that there is no doubt that these were the product of invaders and were not the result of a simple diffusion of culture.

It is not safe to suggest that there was ever a true Hallstatt period in Britain. At Scarborough, Park Brow, Eastbourne, Hengistbury, All Cannings, Swallowcliffe Down, and a few other places, pottery and objects of true Hallstatt type have been found, but often associated with fibulae and other articles typical of La Tène I. It is more probable that at the beginning of the Late Bronze Age there was an almost continuous influx of foreigners along the south coast from Sussex to Cornwall, and that these invaders came in small tribes, some of which, and probably those who travelled the faster, retained in a more or less pure state their original Hallstatt culture, while others brought over a mixed culture of early La Tène—a culture that flourished in the neighbourhood of the Marne. Here and there these small bands arrived, each with its own special variety of Early Iron Age culture, to be influenced in turn by later arrivals. The finger-tip technique and flat-topped rims, characteristic of the Late Bronze Age cinerary urns and of the Hallstatt culture in general, conform to the types of All Cannings, Park Brow, and Swallowcliffe. At these three places there was an absence of the curvilinear design so typical of Late La Tène II. Moreover, at All Cannings thick horizontal mouldings with finger-tip impressions, identical with those on barrel and bucket urns, were found; while at Park Brow tall bucket urns with finger-tipped mouldings were also discovered. This equates the Late Bronze Age cinerary urns with All Cannings, and testifies to the coincidence of the Late Bronze Age with the dawn of the Early Iron Age. At All Cannings was found a bronze razor of maple-leaf shape and part of a bronze socketed celt. A similar razor was discovered in South Lodge Camp associated with a finger-tipped barrel urn and fragments of globular urns. No socketed bronze implement has ever been found with a collared urn; and socketed implements are characteristic of the Late Bronze Age. Negative evidence is never trustworthy, nevertheless this fact suggests that socketed implements and therefore the implements of the Late Bronze Age were not introduced into Britain before the knowledge of iron. The association of the iron spear-head with the bucket urn from Colchester¹ lends strength to this theory. With the exception of

¹ No. P.C. 617, Colchester Museum.

the bronze beads from Barton Common, this is the only instance of an object associated with Late Bronze Age burials.

Barrel and bucket cinerary urns are contemporary and in most cases can be differentiated, although at Pokesdown they were associated together. As a general rule the barrel urns are confined to Hants and the south-west corner of Wilts., while the bucket urns abound in Dorset, in the Thames valley, and in East Anglia. This is further evidence for the independent nature of the invasions at the end of the Middle Bronze Age. The large handled urns from Cornwall resemble the barrel urns of Hants in outline, and show further affinities in the cross inside the base of the Berry Head¹ example and the crosses inside the bases of the specimens from Ebbesbourne, Woodminton, South Lodge, and Woodyates. The typical barrel urn has an expanded rim, short concave neck, separated by a horizontal moulding from slightly convex sides; whereas the bucket urn has an unexpanded rim, straight sides, and a horizontal moulding, usually at the junction of the upper and middle thirds, above which the straight neck may be inclined inwards or else be continued upwards in the same plane as the sides.

[The pottery has since been handed over to the British Museum.]

¹ *Archaeol. Journ.*, ix, p. 93. See also *Wilts. Arch. and Nat. Hist. Mag.*, xliii, p. 318.

*Carvings from the tomb of Guillaume de Ros,
third abbot of Fécamp*

By PHILIP MAINWARING JOHNSTON, F.S.A., F.R.I.B.A.

[Read 20th January 1927]

THE slabs on which are carved the bas-reliefs with which this paper is concerned are fastened by iron clamps or holdfasts to the south wall of the chapel of Notre-Dame-de-Bon-Secours, which is the easternmost of the lateral chapels of the choir of the Benedictine abbey church of Fécamp, on its southern side, immediately next to the chord of the apse and the chapels of its *chevet*. This chapel, and indeed all those on the south of the choir, date from the early years of the fourteenth century, when a daring scheme of rebuilding on a very lofty scale was begun during the abbacy of Thomas de St. Benoist (1297-1307).

They stand upon the string-course that surmounts a tall wall-arcade of trefoiled arches on slender shafts, rising from a stone wall-seat. The accompanying illustrations (pl. lvi), reproduced by his kind permission from photographs specially taken by my friend Mr. F. J. Clarke, give a good idea of the position occupied by the bas-reliefs, and of the way in which they are 'skied' and the eye turned away from them by the glare of the white glass window over them. It is, perhaps, small wonder that, placed in such a position, these minutely carved reliefs have largely escaped notice, proportionate to their interest, at the hands of antiquaries and guide-book writers.

If it be objected that such delicate sculptures as these we are considering would not be employed on the sides and ends of a tomb in the twelfth century, it may be answered that there are carvings equally delicate in the tomb preserved at Saint-Junien, Haute-Vienne; at Souvigny; and in the late twelfth-century wall-tomb in the north transept, Saint-Pierre, Lisieux. It is as well to state this at once, as the suggestion has been put forward by some who have not seen the church at Fécamp and these bas-reliefs, that they might with more likelihood have formed part of a shrine for the relic of the Precious Blood, now housed in a tabernacle immediately behind the high altar, constructed for it during the abbacy of Antoine Boyer, 1505-19.

On the other hand, there is the strong local tradition that these carved slabs formed parts of a dismantled tomb of Abbot Guillaume de Ros, which is known to have stood eastward of the high altar, within the first bay of the Lady Chapel, where a plain modern stone in the pavement marks its site. The history attaching to this is worthy of note. I quote from the *Guide du Visiteur à l'Église de la Sainte-Trinité de Fécamp*, par Messire Alexandre, Chanoine honoraire, Curé doyen de Fécamp.

'At the entry of the chapel is a sepulchral slab which covers the remains of Guillaume de Ros. This third and remarkable abbot of Fécamp had been interred in that passage-way, in the Romanesque church restored by him in 1099. His tomb was opened in 1875, during the works necessary for the laying of gas-pipes. His bones were entire. They gathered them from the stone coffin that contained them, during the carrying out of the work, and they replaced them therein in 1876. A commemorative inscription cut in the stone has disappeared in less than sixteen years. ...'

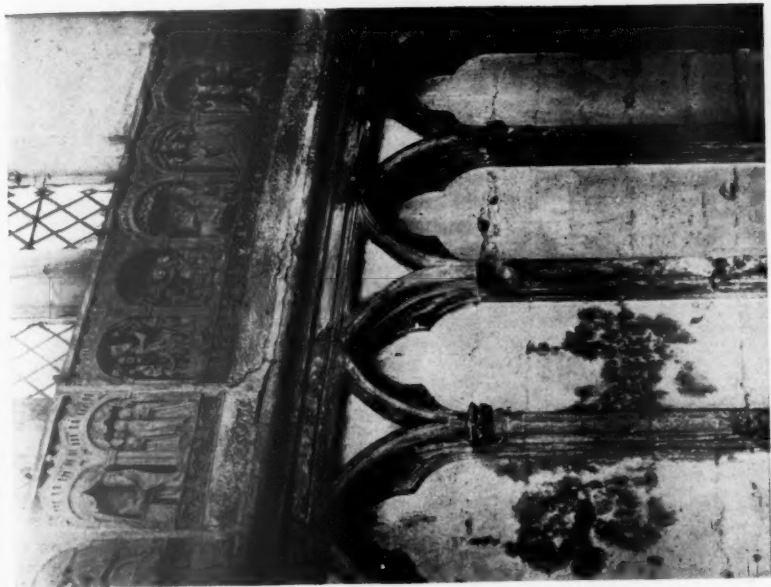
I was informed at Fécamp that the workmen employed to lay the gas-pipes broke up the slab or coffin lid that covered the stone coffin: or it may be that it was the cover-slab of the table-tomb raised over the actual grave. No fragment of this is now visible to test the truth of the story.

It is not inapposite to quote Monsieur Mâle as to the subjects usually carved on these raised or table-tombs. He is writing about the still remaining tombs of the abbots of Fécamp, Guillaume de Putot (1285-97), and his nephew Robert (1307-26), and he remarks that in these, as in other instances of the great tombs, there were represented generally 'scenes from the life of Jesus Christ that the Church sets before us as articles of the faith'.¹

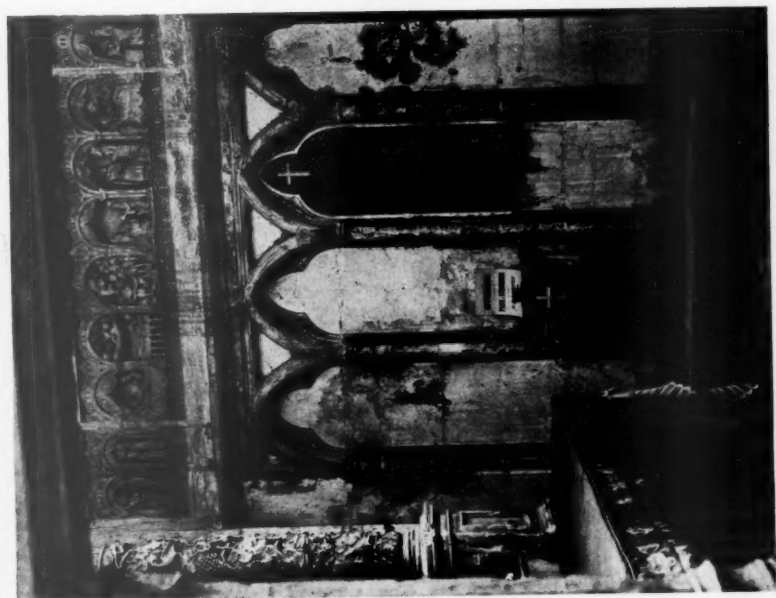
It is, I think, something of a confirmation of the claim that the twelfth-century slabs are from the tomb of Guillaume de Ros, to find that they and these much later tombs of the abbots are carved with scenes from the life of our Lord. Though these chest-tombs of the two de Putots were much mutilated in the Revolution, one can still decipher most of the subjects framed in the niches that adorn the sides, such as the Flight into Egypt, the Crucifixion, Resurrection, and Ascension.

One can well imagine that with sculptures of such delicacy as those of the twelfth-century tomb there would be a surrounding grille of metal by way of protection; and this would partly account for their marvellous state of preservation. As extended upon the wall-surface the slabs measure about 15 ft. in total length, by a height of about 2 ft. 3 in., included in which latter is about 5 in.

¹ *L'Art religieux de la Fin du Moyen Âge*: 'Le Tombeau,' p. 408.



R. J. Clarke, photo
2. The last eight panels, comprising the two at the E. end and the six on the N. side as originally disposed



1. The first nine panels, comprising the two at the W. end, the six on the S. side, and one of the two at the E. end as originally disposed

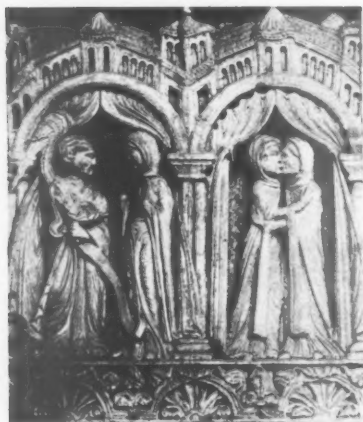


FIG. 1. Western end: panels I and II.
The Annunciation and Visitation



FIG. 2. Eastern end: panels I and II.
The Presentation in the Temple

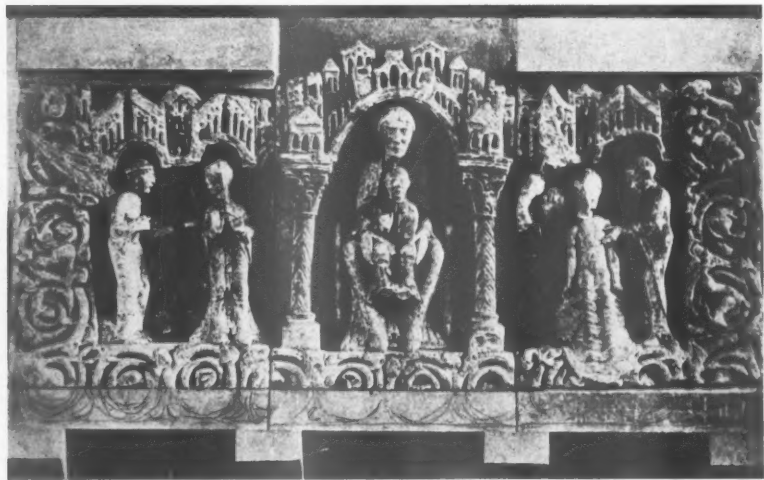


FIG. 3. Stone retablo from the church of Carrières-Saint-Denis, near
Paris, now in the Louvre. Traces of colour remain. Missing
parts supplied by plain stone-work

of plain axe-tooled margin at the bottom, no doubt covered by a moulded plinth when the tomb was complete; and the whole erection, with perhaps a marble covering slab and a recumbent effigy was raised on a dais or platform step. Above this plain margin runs a 3-inch border of elaborated strap-pattern—plumes of foliage framed in semicircular pearled bands—a design which probably goes back in origin to the palmette, or Greek honey-suckle. It occurs in twelfth-century ornament, in manuscripts, glass, mural painting, and sculpture on both sides of the Channel, and figures in a band of mixed ornament at the foot of the sculptured scenes on the well-known twelfth-century font in St. Nicholas' Church, Brighton.¹ It is also found in an elaborated form, as an upper border, on the twin fonts of Stanton Fitzwarren, Wilts., and Southrop, Gloucs.—both of c. 1160 and betraying French influence.

In reconstructing in the mind's eye, one must supply some angle piers, probably in the form of triple marble shafts, with capitals and bases resting on the moulded plinth; and a moulded or carved cornice may have intervened between the sculptured slabs and the ponderous cover-slab that crowned the whole. All these projecting members would incidentally protect the delicate sculptures. The total thickness of the sculptured slab is about $3\frac{1}{2}$ in., and as nearly as may be guessed this would leave an internal length of about 5 ft. 6 in., and a width of about 1 ft. 2 in.—sufficient for the skeleton of an average man, wrapped in lead.²

Minus the plain margin at the top and the palmette border at foot, the carved surface of the bas-relief is 1 ft. 5 in. high, and into this small space is condensed a scheme of the most minute carving, unerring in its precision, and only to be compared in delicacy and sureness of touch to an ivory carving or the work of an illuminator. The man, or men, who carved this *chef-d'œuvre* must have been in the front rank of the skilled craftsmen of that day. Indeed, it would appear that he had been trained also to work in ivory or alabaster; and the many indications of colour suffice to show that the whole tomb must have glowed with the brilliancy of a painted parchment. There is the same ivory

¹ This font, in a hard white stone—not native to Sussex, and not Caen stone—suggests a French source for the carving as well as the material. It might well have been made at Fécamp and shipped across. It is circular and is carved with the Last Supper and the legend of St. Nicholas, bishop of Myra. The date is about the middle of the twelfth century.

² I am assuming that at the translation of the remains of Abbot Guillaume de Ros—some fifty years after his burial—the skeleton would be lifted from its original stone coffin, and chested within the new tomb, the original coffin being buried beneath.

carver's technique in the bold swish of the hangings, the gracefully looped curtains, the bed-drapings, and the dresses of the figures; and in the minutely diapered backgrounds to the subjects both the ivory-worker's and the illuminator's traditions are blended. To give an idea of the small scale of the work, the pairs of octagonal shafts measure $1\frac{5}{8}$ in., and the arch-band just half that; while the height of the shafts, capitals, and bases is $9\frac{3}{4}$ in., and the width between the pairs of shafts the same.

The subjects constitute a condensed Life of Jesus from the Annunciation to the Ascension, displayed within semicircular arches, springing from conjoined pairs of octagonal shafts. The Annunciation and Visitation are placed in two narrow panels in what must have formed the head or western end of the chest-tomb: two similarly narrow panels containing one subject—the Presentation in the Temple—formed the eastern end, and as the width of these tallies almost exactly (1 ft. 6 in.), we have proof that the tomb was rectangular, and did not taper towards the east.

WESTERN END.

Panels I and II (pl. LVII, fig. 1). In the Annunciation the arms of Gabriel are crossed so that he may emphasize his message with the raised right hand: with the left he holds a scroll on which was perhaps painted the Angelic Salutation. Mary receives the momentous announcement with uplifted hands—the Eastern attitude of Prayer. The beauty of the curtain draperies, hanging from hooks on the soffit of the arches and held back by a curved iron at the level of the capitals, well illustrates the artist's minute attention to detail. The poise of the angel's wing, lifted up above the head, is strikingly reminiscent of the angels in the Entombment of the Blessed Virgin on the tympanum of the west doorway at Senlis Cathedral, where also the type of face and the draperies closely resemble the Fécamp carvings.

The diaper here is of crossed lines, the diamond spaces so formed being tooled into foliage or tufts of grass. With slight variation this applies throughout, save in the two panels which portray the Massacre of the Innocents, where diamonds of a larger size, formed by double lines and enclosing a four-pointed flower are employed. This latter is a form of diaper found on shafts in rich late Romanesque work; but it is rarely met with, save in illuminated manuscripts where painted ornament is precocious, before the thirteenth century in carving.

In the Visitation Mary and Elizabeth clasp each other, each displaying the curious long pendent sleeve border—like an

exaggerated maniple—characteristic of feminine fashions in the second half of the twelfth century.¹

SOUTHERN SIDE : 5 ft. 10½ in. long (pl. LVIII).

Panel I. The Nativity. The Blessed Virgin reclines upon a bed,



FIG. 1. Joseph in the Nativity panel.

wrapped round with ample bed-coverings. Her head rests on a pillow, and is supported by her right hand, a veil or wimple framing her face ; while at the foot of the bed is seated Joseph (fig. 1), apparently sleeping, with his left hand holding the elbow of the right arm lifted to rest his cheek upon. He wears that singular

¹ The woman who is handing something to the shipmaster in the legend of St. Nicholas on the Brighton font has these same long pendent sleeves.

shell-like head-covering which is only met with in twelfth-century figures in France, and is conjectured by M. Mâle and others to represent a bonnet used as a distinctive head-dress by Jews—*un bonnet à côtes*, or, as we should say, a ribbed bonnet. It is found again in the Flight into Egypt.¹

Panel II. The Manger-cradle is shown as raised upon an open arcade of seven round arches on octagonal shafts with minutely moulded capitals and bases. The swaddled Child lies with His head towards His Mother and His feet to the East. The ox's head, mutilated, is seen to the left, and that of the ass to the right. Beside it looks in the chubby face of a shepherd framed in the hood of his cape. Above is a bunch of clouds, and in the arch over are eight angels with smiling round faces—'the multitude of the heavenly host'.

Panel III. The Angel announcing to the Shepherds the Birth of the Saviour. Eight shepherds in hooded capes, some with horn and staff, or crook, are standing by a flock of sheep and two rams, with uplifted faces, listening to the good tidings. A long extended scroll probably bore the legend, 'Gloria in excelsis Deo', etc. The shepherd peeping round the pillar in the preceding panel holds the end of this scroll behind his back, to mark the unity of these two panels as one scene.

Panels IV and V. The Adoration of the Magi. Like the last this is a two-panel subject. The Virgin upon a draped throne, with an open-work footstool, holds upon her knees the Child, represented as about two years old; the heads of both are unfortunately missing. The foremost of the three Wise Kings with a crown and a grave bearded face, kneels before the Child, offering his gift of gold. In Panel IV the two others advance, each holding his gift. The face of one is mutilated, but the rearmost, holding apparently an incense-boat, has preserved the face and crown uninjured. Both the crowns are of an early type, like those on the effigies of the Angevin kings at Fontevrault, i.e. with a flower standing up above the band of metal—here rather wide—that encircles the head. The King presenting gold has a sort of maniple round his left wrist: the one with the frankincense wears a mantle with a hood at the neck and appears to be holding the gift

¹ The instances of the occurrence in French twelfth-century carvings are too numerous to quote here, but the following examples may be noted: Notre-Dame, Paris, a figure in the archivolt of the S. or St. Anne's Portal of the west front, where the tympanum and other carvings are relics of an old church; Chartres, in the Portail-Royal—several times over; Le Mans Cathedral; Bourges; St. Loup-de-Naud, and formerly in one of the statues representing 'The Ancient Law', attached to the jambs of the central, or Judgement, portal in the west front at St. Denis.



FIG. 1. Southern side: panels I, II, III. The Nativity and the Annunciation to the Shepherds



FIG. 2. Southern side: panels IV, V, VI. The Adoration of the Magi and the Angel appearing to them in a dream



FIG. 1. Northern side: panels I, II, III. Herod ordering the Massacre of the Innocents; The Massacre; The Flight into Egypt

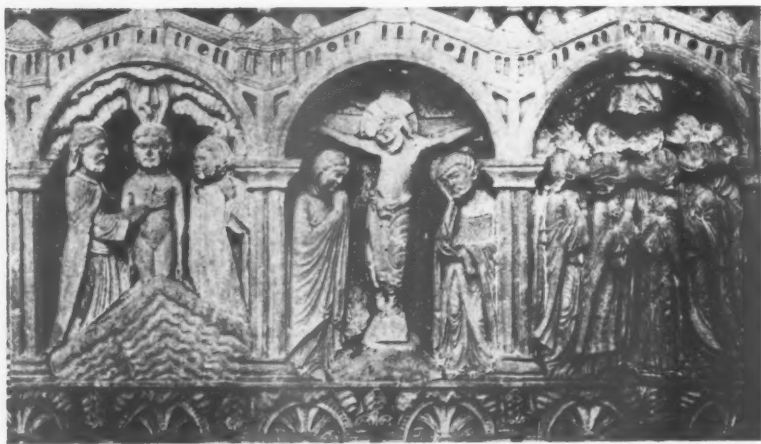


FIG. 2. Northern side: panels IV, V, VI. The Baptism, Crucifixion, and Ascension

in the folds of the mantle. Here again note the gracefully looped curtains, held in position by several large hooks or staples.

Panel VI (completing the south side). *The Magi warned of God in a Dream.* A round-faced angel, holding a scroll, bends over the three sleeping figures, pointing his warning with uplifted forefinger. Note the curtain and bed-drapings. The Kings, as usual, are represented wearing their crowns in bed.

EASTERN END.

Two Panels representing the Presentation in the Temple. In the left-hand panel, Simeon, as a priest in a chasuble and alb, kneels on one knee before an altar (vested in flowing folds), and holds the Holy Child before him on the altar. On the right are shown Joseph, Mary, and another woman, the two latter bearing each a turtle-dove in their arms: Joseph also carries something shaped like a loaf in his left hand. Behind are the heads of a man and a woman—perhaps Anna the prophetess. The beauty of the hooked-up curtains again deserves notice (pl. LVII, fig. 2).

NORTHERN SIDE: 5 ft. 11 in. long (pl. LIX).

Panels I and II. The Massacre of the Innocents. Herod, crowned, and seated on a throne, is vested in a royal mantle fastened at the right shoulder. His feet rest upon a remarkable circular footstool, and his left hand is on his knee, while the right, covered by a long gauntlet, like those used in hawking, is lifted with a crooked forefinger, as he gives directions for the Massacre to two soldiers. Behind him is a group of counsellors—grave bearded men, and in front of them a youthful courtier, seated on the floor, holding a sword: opposite is another seated figure, also with a sword, who, from his foolish attitude and expression, may be meant for the court-jester.

In the second panel the Massacre is taking place. Six mothers are vainly striving to shield their infants from three soldiers, who are in banded mail with mail coif drawn up over the chin: their weapons are a mace and short sword. The same scene, as presented in the medallions carved round the arch of the north doorway of the chapel of St. Joseph of Arimathea at Glastonbury (1185), presents many resemblances, in the mail of the soldiers, etc.

Panel III. The Flight into Egypt. Mother and Child are headless, but Joseph and the ass are quite perfect: Joseph, wearing the Jewish bonnet before mentioned, leading the ass and carrying an axe and a bundle over his shoulder. From the clouds above appears the beckoning Hand of God.

Panel IV. The Baptism of Christ. Our Lord is shown standing

nude in the heap of waters, John the Baptist with his hand laid upon the breast of Jesus, and an Angel holding up the baptismal robe, a fringed maniple lying over his left arm. Above, from the clouds, the Holy Spirit as a Dove in an aureole of pointed form, and with a circular nimbus, descends upon Him.

Panel V. The Crucifixion. This is perfect save for our Lord's head, which has been broken. The sun and moon appear above the arms of the Cross. Christ, who wears a long loin-cloth looks down towards His Mother, whose hands are lifted to her face, wrapped in a long mantle, her eyes closed in grief. St. John, a youthful bearded figure, rests his head on his right hand in profound dejection, and carries in his bosom the book of the Gospel.

Panel VI. The Ascension. In this last and very perfect scene the eleven apostles with upturned faces are looking 'steadfastly into heaven' as Jesus ascends. Only His feet and skirts are visible in the cloud that 'received Him out of their sight'.

There is one feature that I have left to the last in describing these beautiful and very perfect bas-reliefs, viz. the miniature Holy Cities piled on top of the arcades which enclose the sculptured panels. This convention must be admitted without question to have taken its origin from Byzantine sources, and to have found its formalized expression in France. In the few instances of its occurrence in England, French or Flemish influence accounts for its introduction, and it can never be said to have become acclimatized here. On the other hand, it persisted in France right through the thirteenth century, in Rheims Cathedral, for example, where it is found in works so far apart in date as the mid twelfth-century north doorway and the late thirteenth-century portals.

Here at Fécamp we have the same treatment in sculpture as is found in mural paintings, glass, and illuminated manuscripts of the twelfth century, that is to say, walls pierced with round-headed windows in pairs or groups, occasionally varied with 'bulls-eyes', like the round *oculi* found at St. Cross, Hants, and Canterbury Cathedral, to name but two well-known instances.¹ These walls, which climb up the back of the arch on a flat slope, have a turret in the centre, and others of larger size at the junction of each pair of panels. These turrets have conical roofs terminating in finials of the ball or melon type. Some have scale-pattern tiles or shingles, which are on the roofing generally; others have a scalloped pattern. Probably these last are meant to represent some form of lead roof-

¹ The accidental discovery, through a fire in 1912, of a wall-painting in Hardham Priory, Sussex, disclosed a trefoiled canopy with miniature buildings over, in which an *oculus* occurs between the lancets. Its date was about 1200 (see *Sussex Arch. Coll.*, vol. lviii).

ing. It should be noted that these city-canopies are more elaborate and more highly finished in the two narrow panels which I have assigned to the western end of the tomb—those containing the Annunciation and Visitation.

A curious departure from the general design of these canopies, which otherwise follow the same pattern throughout, is to be seen in the two panels framing the Massacre of the Innocents, where the miniature architecture is on a smaller scale and includes some plain masonry or 'stoning' in the spandrels. This variation may mark the sinister nature of the scenes represented, and also be an attempt to portray Jerusalem the earthly, instead of the City of God. The circular bastion in the centre, with a recessed upper story, loopholes, and battlements, surrounded at its base by a battlemented circular sweep of wall, also pierced with three loops, is certainly a miniature of actual fortifications in the twelfth century. By comparison the other 'cities' are much more conventional.

We find this miniature architecture crowning arched canopies or niches over saints or groups of figures at many churches in the Ile-de-France and Western and North-western France; or else it takes the form of a canopy over a figure attached to the jamb-shafts of the great portals. An outstanding and well-known instance of the latter treatment is in the western portals of Chartres Cathedral, dating from about 1140. Saint-Loup-du-Naud furnishes another instance.¹ It is also found in canopies at Rheims, and in the north-west portal of the west front of Notre-Dame, Paris.

One of the most striking examples is that of the retabulum, or reredos, of the church of Carrières-Saint-Denis, about 8 miles north-west of the centre of Paris and the same distance west of St. Denis (pl. LVII, fig. 3). It is illustrated in Viollet-le-Duc's *Dictionnaire raisonné de l'Architecture*, and is there pronounced to date early in the twelfth century—an ascription which it is a little difficult to follow. In my own view we must assign to it a date not earlier than the middle of the twelfth century. It is now in the Louvre, having been purchased for the National Collection some years ago, to prevent its being acquired by a dealer.

In its present state it is manifestly incomplete, and the missing cornice and lower scroll-border have been replaced by modern

¹ Our Fellow Miss Graham has brought to my notice some finely carved capitals of the same type as those at Chartres, discovered in the Church of the Nativity, Jerusalem, of about the same date. Two English examples, both betraying foreign influence, may be cited: the canopy above a bas-relief of St. Michael and the dragon in an external niche on the south wall of the chancel at Barfreston, Kent; and a tomb-slab of Liège marble, or 'touch', in Ely Cathedral, probably imported from Tournai—also a canopy over a figure of the archangel, who holds a nude figure of the human soul in a napkin. Both carvings may be dated about 1160 to 1170.

strips of plain stone to give the ancient proportions. It is about 6 ft. long by nearly 3 ft. high, and is carved in fairly full relief, precisely in the manner of the Fécamp sculptures, in a close-grained stone or white marble of very similar quality, from the quarries which are still worked at Carrières.

As in the case of our English alabasters, so here, I believe there were workshops for these delicate altar-pieces, tomb-sculptures, etc., at Carrières-Saint-Denis, founded perhaps by the great building abbot of St. Denis itself—Suger—in the third decade of the twelfth century, and that the Benedictines of Fécamp, through the good offices of the sister house at St. Denis, obtained the new tomb for their abbot Guillaume de Ros. The work of the Carrières reredos is earlier and more archaic, both in the style of the figures and in the architectural setting; and the scroll-work border of sides and base which does not appear at Fécamp is strongly reminiscent of a similar feature in illuminations of the tenth to eleventh centuries. It is apposite also to compare with the Fécamp reliefs a French illumination in a manuscript in the British Museum,¹ which can be dated precisely between the years 1170 and 1173, i.e. before the canonization of St. Thomas of Canterbury. What is no doubt meant for the towers and roofs of the cathedral is piled up above three semicircular arches on slender columns in the background of the martyrdom scene. One of the knights has the same mail coif with a chin-piece as is found in Herod's soldiers at Fécamp—another guide to the exact date of the latter carvings.

Coming now to the attribution of the bas-reliefs to a tomb-shrine of the translated remains of Abbot Guillaume de Ros, I would first give the following extract from Orderic Vitalis, *The Ecclesiastical History of England-Normandy*.²

'The abbey of Fécamp, which stands in sight of the sea, and is dedicated to the holy and undivided Trinity, Creator of all things, was nobly founded by Richard I Duke of Normandy, and afterwards richly endowed with lands and possessions by Richard II. After William of Dijon, a man of great wisdom and zealous for religion, the venerable abbot John governed this monastery fifty-one years. Next it was held for almost twenty-seven years by William de Ros, a clerk of Bayeux and monk of Caen. Like the mystical spikenard, he was an odour of sweet smell in the house of the Lord by his charity, munificence, and many virtues. The works he diligently performed

¹ MS. Harl. 5102. I owe this reference to the kindness of our Fellow Miss Rose Graham. It is reproduced in *Thomas Becket, Archbishop of Canterbury*, by W. H. Hutton.

² Book IV, chap. ix (in the translation, vol. ii, p. 66). Translated by Thomas Forester (Bohn's Translations), 1854. I have to thank Miss Rose Graham for the reference.

either before the world or in secret before few witnesses, bore witness to the spirit which dwelt in him, and entirely possessing him, conducted him to his crown before the throne of the Lord of Sabaoth.¹

This will serve to show, that Guillaume de Ros was held in high estimation in his Order and at Fécamp especially : add to this that he was the rebuilder of the great church and its buildings, and the probability is strengthened of the bas-reliefs having originally formed part of a sumptuous new tomb erected over his grave in the further great rebuilding under Abbot Henri de Sully (1171-90).²

Monsieur Jérôme Malandain, the learned President of the Association des Amis du Vieux Fécamp, has kindly furnished me with the epitaph composed for his first sepulture by Hildebert, bishop of Le Mans :

Pauperibus locuples, et sacri nominis abbas
Willelmus, solo corpore, cultor humi :
Liber ab Ægypto rediens, deserta reliquit,
Iamque Hierosolymam, victor, ovansque tenet,
Cum vitiiis odium, cum moribus ille perennem
Pactus amicitiam, firmus utroque fuit.
Luce gravi nimium quae sexta praeibat aprilem,
Redditus est patriae spiritus, ossa solo.

This inscription, M. Malandain informs me, was engraved in gilt letters on the covering slab of his tomb. He adds : 'We have the lead slab found in his coffin, with this inscription :

Hic jacet abbas Willelmus primum ecclesie Baiocensis cantor et archidiaconus deinde Cadomi monachus ad extremum Fiscannensis abbas tercius quod per XXVII annos et dimidium optime rexit et ecclesiam atque officinas intus et foris renovavit vir in omnibus boni testimonii hic obiit VII^o Kal. Aprilis M^oC^oet VII anno ab incarnatione Domini Salvatoris.'

M. Malandain considers that the theory that the bas-reliefs belonged to a tomb erected at a later date over the grave of Abbot Guillaume de Ros cannot be traced earlier than the early nineteenth century, when M. Vitet, M. Germain (in a *Guide to the Abbey Church*, 1836), and the Abbé Cochet (in *The Churches of the environs of Havre*, 1845) also agreed in suggesting that this ascription was the correct one. He adds :

'No part of the old slab was found in 1875, as the pavement had been renewed in 1750. If the slab existed, nothing could prove it was a tomb, as no inscriptions remained, because in the beginning of the sixteenth century Cardinal Boyer, twenty-eighth abbot, built all the

¹ I presume that he was a brother of the famous Maurice de Sully, bishop of Paris, 1160-96, the great rebuilder of Notre-Dame.

Renaissance gates of the chapels, so that everybody had to walk on the tomb of Guillaume de Ros, and the inscription disappeared. It was the same with the tomb of Pierre Cervoise, twenty-second abbot, at the entrance of St. Peter's Chapel, nothing can be seen now; but as the chapel is a small one it was still visible in the time of Guillaume Le Hule (1684).'

'The relic of the Most Precious Blood, hidden in one of the choir pillars in 989 by the Duke Richard I, was discovered by Abbot Henri de Sully, fifth abbot, the 19th July 1171. He placed the relic over the main altar, so that it could be seen by everybody. The relic is in a very small shrine (as you can see by a postcard I am enclosing) and the bas-reliefs cannot belong to a shrine built for this relic. The shrine would have been too large, and its form and material would not admit of its being opened repeatedly during the year. . .'

M. Malandain goes on to suggest that the bas-reliefs, if not belonging to a tomb raised over the coffin of Abbot Guillaume de Ros, may have formed the sides and ends of a costly shrine for the bones of certain venerated ecclesiastics and laymen. He writes :

'We know that Guillaume de Ros when enlarging the Church divided the choir into two parts by a wall. The old choir wall called St. Saviour's and the main altar was placed on the lower site, just before this wall. In the beginning of the sixteenth century Cardinal Boyer gave a new white marble high altar, and placed a large white marble shrine on top of the wall,' and here or hereabouts were set up two white marble statues of St. Taurin and St. Suzanne, patron saints associated with the church, and the small white marble monument wherein was deposited the little shrine of the Most Precious Blood. No alterations were made in the choir, only a new altar was made in place of the old one.'

The relics contained in this large white marble shrine that still exists, M. Malandain argues, must have been contained in an older one of the same size, as the abbey was rich in sacred bones.

He proceeds to suggest that the bas-reliefs may be the sides and ends of a shrine in which these collected 'sacred bones' may have been deposited by one of the twelfth-century abbots and placed on top of the screen wall built by Guillaume de Ros, 'when the crypt used previously' for interments and 'relics was filled up'. 'If they'—that is the sixteenth-century innovators—'kept the bas-reliefs we can see to-day, it is only because they were for a long time in contact with the sacred bones, and

¹ M. Malandain does not use the word 'ossuary', but that is evidently what he means—a chest or ark, not of wood, like those preserved on the choir screens of Winchester Cathedral, also erected early in the sixteenth century, to contain the bones of Saxon kings and bishops, but of marble with wooden box or boxes inside.

such things cannot be destroyed, but must be either burnt or buried in the earth.'

M. Malandain adds :

'The large marble shrine [i.e. that provided by Cardinal Boyer, early in the sixteenth century] is two metres long. The panels supposed to be from the tomb of Guillaume de Ros are 1 m. 83 long. With the pillars it was about the same size. It was surely of the same size, as we know two wooden cases were inside. I think nothing now remains of the sacred bones.'

I have given above the exact measurements in English feet and inches, as taken by me on the spot, and they tally with M. Malandain's French dimensions. I think it will be seen that these measurements would fit either the tomb theory or that of the relic-shrine. At the same time it is fair to state, as M. Malandain concludes by reminding me, that : 'The raised tombs now in the abbey church' [of the two de Putots], 'as cited above are—Robert de Putot, 2 m. 50 long, though it seems shortened to be placed where it is now ; Guillaume de Putot, 3 m. 30 long' ; but as against this one may remark that the increased length would rather mark the much later dates to which these tombs belong, and M. Malandain does not comment on the fact that their bas-reliefs are also of the Life of Christ, and on the same minute scale.

Also I am supposing that only the translated bones and dust of Guillaume de Ros were covered by this cenotaph, which may have either contained them in a thin wooden chest, or have been set up over the coffin beneath the pavement, as suggested by the discovery made in 1875.

Thus we may consider the actual purpose served by these carved panels an open question ; but English and French antiquaries can be of one mind in regarding these bas-reliefs as among the finest examples of twelfth-century carving extant.

It is both a duty and a sincere pleasure to express my deep indebtedness to Miss Rose Graham, F.S.A., and to Monsieur Jérôme Malandain, President of l'Association des Amis du Vieux Fécamp, for their most kindly rendered help in the preparation of this paper ; also to M. le Docteur Dufour, late President of the same Association, who furnished me with a panoramic photograph of the bas-reliefs ; and to my friend Mr. J. F. Clarke for the use of some of his excellent photographs.

DISCUSSION

Mr. ARTHUR GARDNER said that hitherto Normandy had been regarded as a backwater in the twelfth century, most of the schools being in the south or east of France ; but good work was evidently

being done at Fécamp in the latter half of the century, possibly by the craftsmen of the Chartres porches. He had seen remains of a tomb with similar features in the north transept of Évreux: under arcades were pairs of angels seated at desks; and in front of the tomb was a worn effigy of Purbeck marble, like those at Sherborne. With regard to the Rochester doorway, the connexion was rather with western France, as Poitiers, and the same kind of foliage could be seen at both places.

Rev. E. E. DORLING was disappointed to see no heraldry on the tomb, as the Ros water-bougets might have been expected. It was interesting to find how advanced the French work was in comparison with English at that period, another case in point being Salisbury chapter-house.

Mr. CLAPHAM said the meeting was indebted to Mr. Johnston for an interesting set of carvings, but regretted that so little had been said about Guillaume de Ros. Was there any evidence for the attribution of the tomb, which was erected two or three centuries after his death? He would go farther and question whether the carvings formed part of a personal tomb at all. The only parallels were the royal tombs at Fontevault, and the Fécamp slabs might have belonged to a shrine of the Holy Blood. That kind of canopy work was fairly common in capitals towards the end of the twelfth century, but more frequently in the south, as at Vienne; and the same style was found in the Holy Land at Nazareth, the date being prior to the battle of Hattin in 1187. The parallel suggested an earlier date for the Fécamp carvings.

Miss GRAHAM considered that the undercutting of the carvings suggested ivory models. There was similar work at Évreux, which was once dependent on Fécamp, and Mans had a corresponding scene of the Nativity. At Dijon there was a tomb with Nativity scenes, and Dijon and Fécamp were connected in early times. An enthusiastic account of Guillaume de Ros was in existence, and a psalter in the Harleian MSS. had illustrations of Thomas à Becket between 1170 and 1173, with canopy work like that at Fécamp, where the figures were high on the wall, and could not be seen as well as in the excellent slides thrown on the screen.

The PRESIDENT inquired why the original tomb was destroyed, and why it was reconstructed a century later. The dimensions seemed to be 7 ft. by 2 ft., not very appropriate to a tomb. Carrières had been mentioned, but the three slabs in bas-relief there had archaic forms, quite different in character, a real sculpture, in contrast to the Fécamp carvings. There was some resemblance to the somewhat later Cosmati style which had mosaic, *opus Romanum*. The diaper, curtains, and massive structures at the head of the arches had some relation to the later Cosmati style. An ivory technique was evident in the division into small plaques, and the Embriachi work of Italy showed the same relation between figures and background. The palmette border was distinct evidence of the use of ivory models, and survived in Rome from classical times till about 1300.

Mr. JOHNSTON explained, in reply, how the carvings came to be known as the tomb of Guillaume de Ros. When the tomb was dismantled in the eighteenth century, the panels were set up on a wall, but the covering slab was buried. Some workmen, however, who were sent to run a gaspipe below the floor broke it to pieces and it was reburied. The name of Guillaume de Ros was upon it, according to tradition, and local antiquaries were anxious to disinter the fragments. The position of the tomb was marked by a modern slab. An interval of a century between the date of death and erection of a tomb was common all over the continent; and Guillaume de Ros would be venerated as having started the rebuilding of the church. He agreed with the attribution to Chartres where doorways about 1160 had the same type of canopy as those seen on the crown of the arches at Fécamp. He referred to an arch with canopy in a painting disclosed by a fire at Hardham Priory. There was a close analogy to ivory-carving in these bas-reliefs.

AUTHOR'S NOTE

Fécamp had an early and exceptionally intimate connexion with England, and the trading and territorial relations were very close. William the Conqueror was brought up in its castle, and kept his first Easter there after the Conquest. Edward the Confessor had already endowed its abbey with lands, etc., in Sussex, at Steyning—a cell of Fécamp—where the monks built the existing eleventh- and twelfth-century church; at Hastings, Winchelsea, and Rye. In Rye church their work is clearly traceable, both in twelfth- and thirteenth-century periods. The churches of Warminghurst, Ashurst, Bury, Goring, Brede, Southwick and Sele also came into their possession, and they had lands in Sompting. The Norman tower of Southwick church and other parts of the fabric are obviously due to Fécamp influence. Two of our most famous building-bishops in the eleventh-twelfth centuries had been monks of Fécamp—Remigius of Lincoln and Herbert de Lozinga of Norwich—as were also Turolde, abbot of Malmesbury (1070), and Herbert, abbot of Ramsey, Hunts. (1088-91). The schools of carving and the decorative arts that were fostered by Fécamp would undoubtedly leave their mark upon our English art over a very widespread area for quite two centuries; and had we still remaining tombs and shrines of the twelfth century in our churches influenced by these Normandy Benedictines, we should almost certainly find close parallels to the bas-reliefs at Fécamp.

A Late Palaeolithic Settlement in the Colne Valley, Essex

By MISS NINA FRANCES LAYARD, F.S.A.

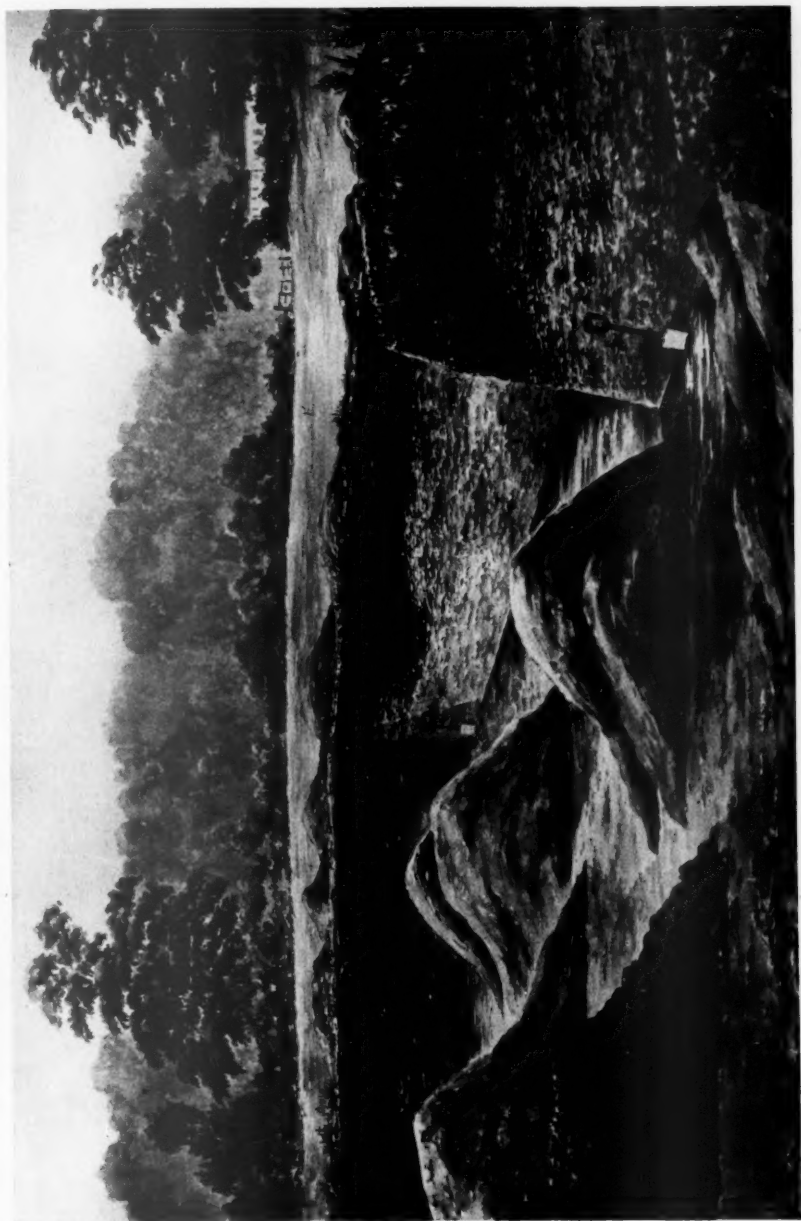
[Read 17th March 1927]

THE small flake implements belonging to a late palaeolithic industry, some of which are shown in the illustrations of this paper, were collected during about three years' work in some gravel pits which have been opened in a river terrace in the Colne Valley, Essex. That this site represents a settlement, and that the flints are not merely an aggregation of odd implements brought down by flood, there appears to be sufficient proof, first because of the distinctive nature of the industry itself, and secondly by the finding of hearths and depressions, which appear to be either the floors of pit dwellings or for use as wind-screens. The numerous cores and flakes also found suggest that the working places of implement makers have come to light.

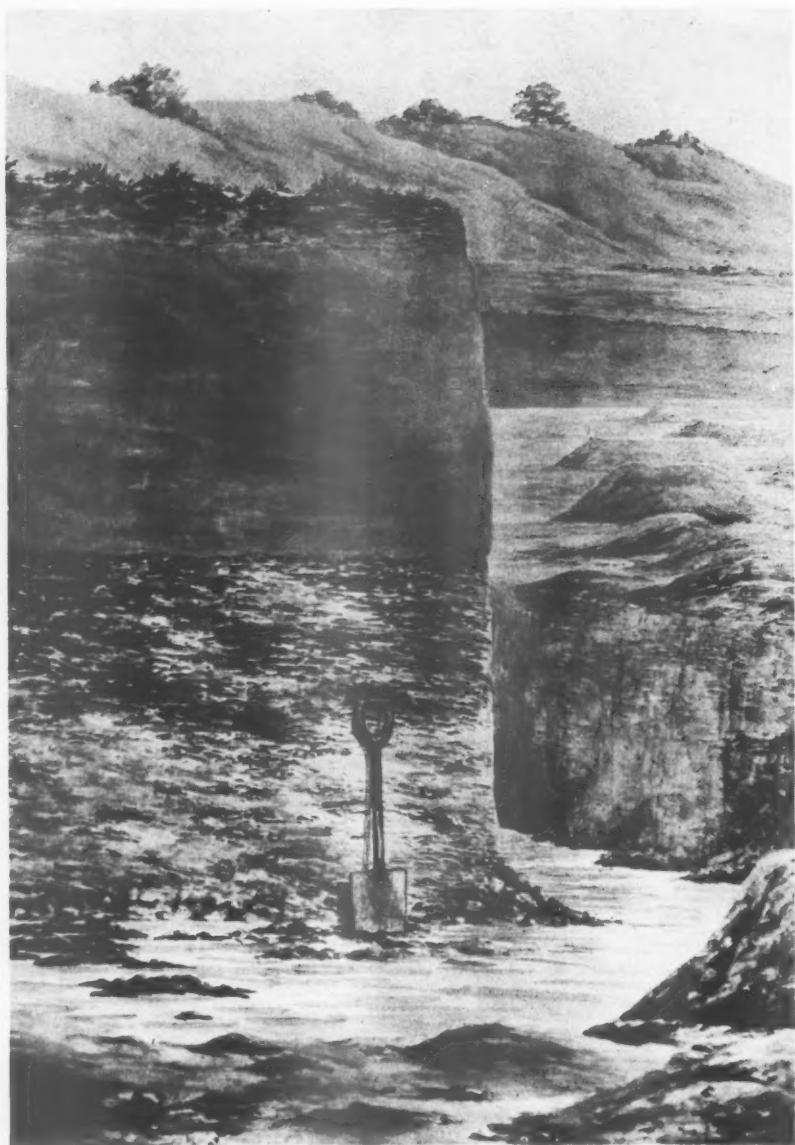
The gravel pit shown in pl. LX is the first of two sites which I am examining, and is known as pit I. From it I have obtained many hundreds of humanly fashioned flints, some of them found by the workmen, and others, during my own excavations, carried out by kind permission of Mr. Smith, the owner of the pits. Colchester Museum has a small collection from the first of these sites. These I have examined. They closely resemble some of our specimens.

The flints occur in a loamy gravel which caps the stratified river gravels in the terrace under investigation. They are usually at a depth of from one to two feet below the surface, but this depends upon the particular part of the pit which is being worked, as the nearer it is to the river the less loam is found to overlie the floor. The view (pl. LX), which was taken last June, gives the appearance of the gravel pit at that time, but it will be understood that as the work proceeds, changes are seen in the section.

On that occasion it happened that two well-defined artificial depressions of considerable size were visible, cutting into the stratified gravels. A small hearth lies between the two. A silted up hollow at the far corner had already been disturbed in the ordinary course of work, and from it the men had removed a heap of reddened hearth-stones. The hollow measured 8 ft. across by 4 ft. deep.



Pit I. Colne Valley. Essex



Pit II. Colne Valley. Essex

Three other hearths have been examined, two of them containing burnt stones, one or two pot-boilers, cores, and some finely worked flints, including two possible burins. The other showed merely blackened material from a fire.

In figs. 1 and 2 will be seen fifty-one out of eighty of the *dos rabattu* forms from the Colne Valley. They average about $1\frac{1}{4}$ in. in length,

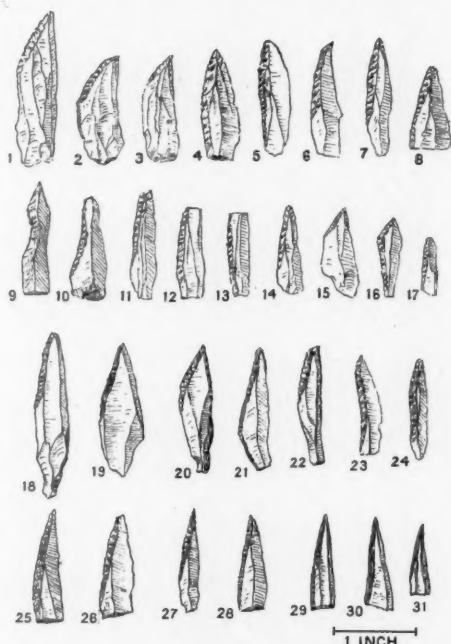


FIG. 1. Flake implements, mostly with *dos rabattu* ($\frac{1}{2}$).

but many are 1 in. only, or even $\frac{3}{4}$ in. Among the total number found, fifty-three are worked on the left side only, fifteen on the right side only, and nine with some edge chipping on both sides, while three are practically worked the whole way round (fig. 2, nos. 43, 55, and 56). With the one exception of a lunette (56), it will be noticed that geometric forms are entirely absent. The beautiful tool (58), with a peduncle, is shaped into a scraper at the bulbar end. Of denticulated flakes there are quite a number, most of them being short and broad (fig. 2, nos. 42, 44, 45, 46). Nos. 39 and 59 are remarkable for their straightness, and for the perfection of the long parallel flaking, which extends from bulb to tip.

Over a hundred cores varying in height from $1\frac{3}{4}$ to $\frac{3}{4}$ in. have been recovered from no. I pit, eight of which are seen on fig. 3, the neatest being usually the smallest and minus any cortex, while a considerable number of the larger ones is rough and irregular, with patches of crust still unremoved. From this I gather that the larger ones show the first roughing out stages of the

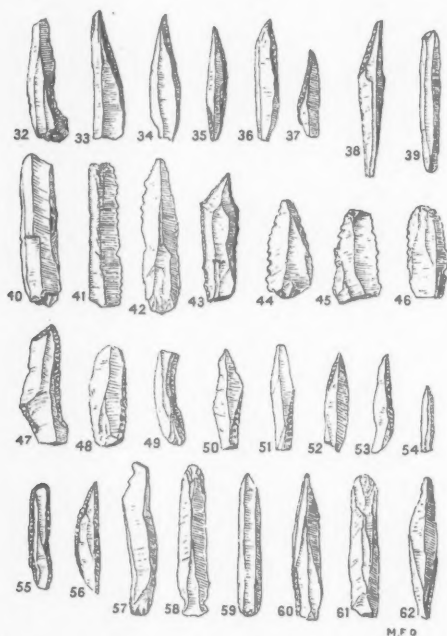


FIG. 2. Flint implements, mostly with *dos rabattu* ($\frac{1}{2}$).

nucleus. The cores vary in design. Some are pyramidal, the flakes being removed from one platform—others being worked from two platforms at right angles to one another—while some are long and narrow. One of these is a nucleus of great beauty and of quite remarkable form. It is milky white and slightly lustrous (fig. 4, no. 13). All the five well-defined groups of small cores (or cones) described and figured by Messrs. W. G. Clarke and Halls in their paper on 'Cone Cultures in the Wensum Valley' are present.

The thirteen worked flints above the cores (fig. 3) represent a small hoard from one of the depressions found last September.

They include a *dos rabattu* marked 'A', and one with *encoche* marked 'B'. As many as thirty worked flints have occasionally been found together in these hollows.

Fig. 4, nos. 2, 3, are examples of flakes which have generally been regarded as a coarser form of *dos rabattu*, but Miss Garrod, who examined the series, recognized them as *lames de dégagement*,

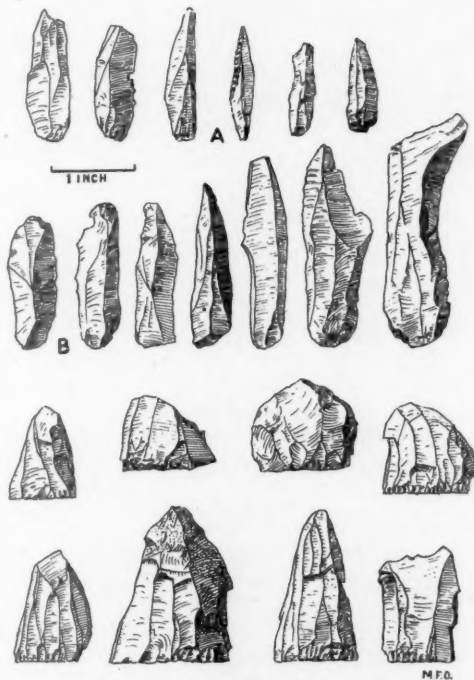


FIG. 3. Hoard of small tools found in a depression.
Cones of various forms ($\frac{1}{2}$).

that is to say, the portion of flint removed from the edge of a core to secure improved flaking. Of these I have fourteen examples. She also picked out minute specimens of the *lamelles de coup de burin*, portions detached from the working end of a burin when re-sharpening it.

Nos. 9 and 10 are incipient *pointes à cran*, and nos. 11 and 12, though possessing a similar shoulder, have rounded, scraper-like tips, worked down at the bulb end. On the whole the industry is weak in burins, though there are a few of the *bec de flûte* type, and several worked-out cores afterwards adapted for use as graters.

This was pointed out to me by the Abbé Breuil. Nos. 14 and 15 show one example in two positions of the *bec de flûte*. It is not very finely worked, but it shows definite step flaking where the burin point has been resharpened. A neatly worked borer (17)

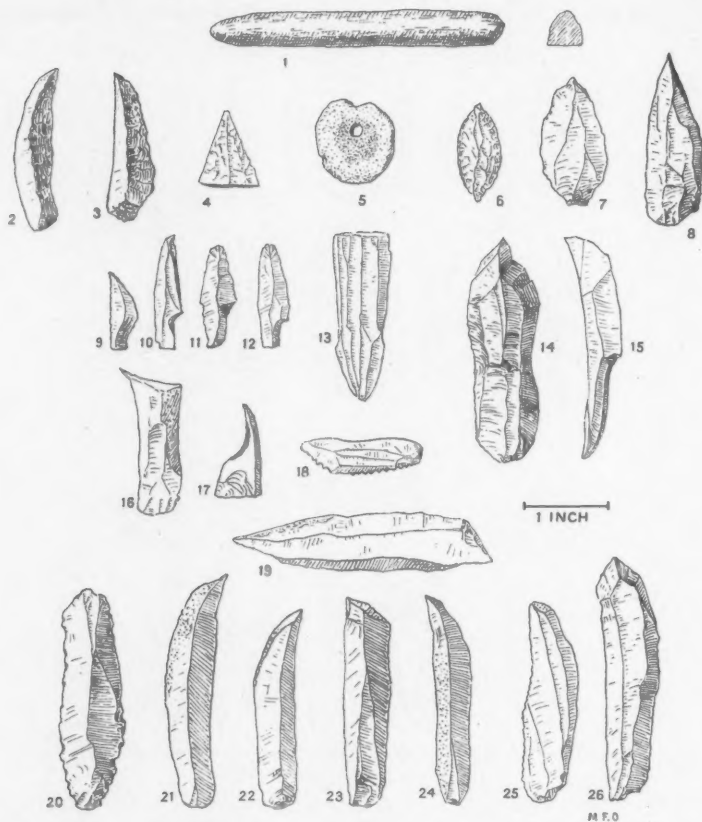


FIG. 4. Various flake implements from the Colne Valley ($\frac{1}{2}$).

is the only tool of its kind found in the excavation. Nos. 18 and 20 are good examples of denticulated implements of which there is a considerable number.

So far the illustrations mostly represent specimens which have definite edge work, but a glance at the whole collection of many hundreds of curved, pointed, and carefully shaped flakes suggests at once that the great majority of these, though without any fine

retouch, are as strictly implements as the others. Seven examples are shown (fig. 4, nos. 19 and 21 to 26). It is difficult to decide the true provenance of two finely worked pieces, as I did not remove them from the pit myself. One (4) is the tip of a slender point and the other (6) is a small oval arrow-head with just the hint of a tang, but this I believe to be later, as the patination differs from the majority of the artifacts found.

No. 5 is a very remarkable object, apparently a stone pendant. It is a split pebble which, Mr. Dewey tells me, is formed of rock consisting of a calcareous paste, and enclosing angular fragments of quartz and glauconite. A little above the centre a hole has been drilled for suspension, and the surface appears to have been chipped down in order to make it thin enough for perforation. A flat quartzite pebble, somewhat larger, and in process of being drilled from either side, was found by M. Hamel-Nandrin in the Grotte du Coléoptère, Belgium. It was obtained from a floor which yielded small flake implements and cores that appear to resemble those from the Essex settlement. At present at Colne we have no fauna in these upper beds to help us as to the period of the industry discovered, but on the Belgian site referred to, *Tetrao lagopus* and a pierced tooth of *Canis Vulpes lagopus* have come to light—a characteristic fauna of late Quaternary times. Of more importance is the fact that the bed in which this industry occurred in Belgium is immediately above a definitely Magdalenian site containing harpoons, needles, etc.

Mr. Reid Moir, who has examined both the gravel pits with me, has kindly written the following report on the geology of the silted up deposits of the Colne Valley. The diagrammatic drawings are also his.

Report on the Geology of the Deposits exposed in the bottom of the Colne Valley, Essex

'The valley of the Colne, like most of the East Anglian river valleys, is cut through the chalky boulder-clay, glacial gravel, and underlying deposits, and its floor is covered by accumulations of gravel, loam, and alluvium.

'The pits visited are situated at the bottom of the Colne Valley, and their position is indicated in the diagrammatic cross-section (fig. 5, A).

'It will be seen that the deposits in which these excavations are made form the lowermost terrace of the valley at this spot, and are almost certainly of late geological age. In the first pit examined there is present an extensive exposure of stratified river gravel, the upper portion of which exhibits a peculiar festooning,

and is mixed with a loamy deposit of a dark colour. In places this loam forms a well-defined though thin bed surmounting the gravel (fig. 5, B).

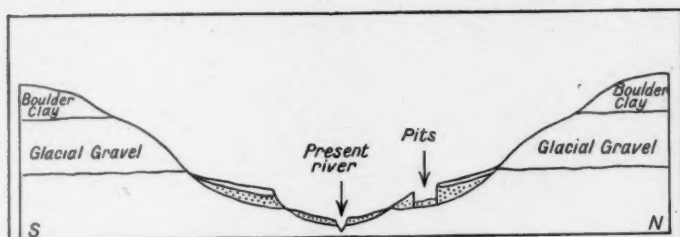
‘It is difficult to say to what cause the festooning of the upper portion is due, but the melting of incorporated masses of ice might have given rise to it. The interpretation is, however, made more difficult by the occurrence of ancient artificial excavations of small extent which extend into the gravel. At the base of the deposit water is present, and its presence is said by the workmen to be due to a bed of blue loam that underlies the gravel. This loam was not exposed at the time of the recent visit to the pit.¹ The flint implements and flakes, found by Miss Layard, occur in the darkened, loamy portion of the gravel above mentioned, and were made apparently by a race of people living at the close of or immediately after the gravel-making conditions. The specimens are unrolled, and so cannot well have been transported far, if at all, by water action.

‘The second pit visited (fig. 5, C) showed a clearly defined section of yellow stoneless loam resting upon stratified gravel which did not exhibit the festooning observable in the other excavation. Geologically, the second pit seen is the most satisfactory, and it would be well if the flint implements and flakes of the types collected in the first excavation visited could be found below the loam mentioned.

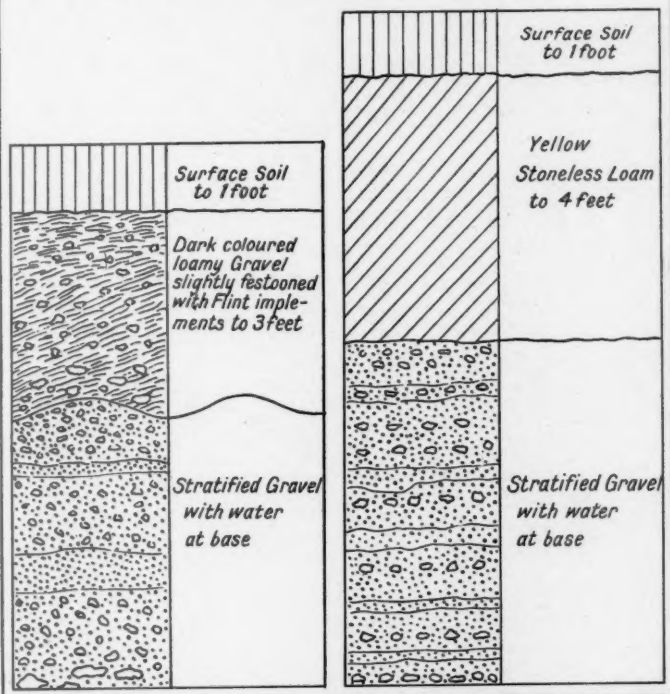
‘It will be seen from fig. 5, A, that the loam and gravel in both pits now form the lowermost terrace of the Colne Valley at this spot, and if it can be shown that the humanly-flaked flints belong indubitably to one or other of these deposits, and have no connexion with the present land surface, then it is clear that since their makers lived, noticeable geological changes have occurred in the area. It appears to me highly probable that both the loam and the gravel were laid down in late palaeolithic times, possibly posterior to the Solutrian cultural stage.’

Since Mr. Reid Moir’s examination of the two pits in the Colne Valley I have turned my attention more especially to pit II (pl. LXI), where the thick mass of yellow stoneless loam covers the loamy stratified gravels to depths varying from 3 ft. 6 in. to 4 ft. This thins off as the land descends towards the river, as will be seen in the background of the picture, and though present in a small quantity in pit I when I began excavation there, is completely denuded away at the lower end of the pit which is now being worked.

¹ I have since seen the blue loam here mentioned at a depth of about 10 ft.—N.F.L.



(A) Diagrammatic cross section of Colne Valley.



(B) Section of Pit I.

(C) Section of Pit II.

After J. Reid Moir

FIG. 5. Sections across Colne Valley, and of Pits I and II.

Mr. Reid Moir had pointed out that if the same industry found in the first excavation could also be traced below the stoneless loam in pit II, the case for the antiquity of the flints would be strengthened. It was therefore with no small satisfaction that on 19th September last I obtained one beautiful example of a delicately flaked tool from pit II. It was found by a workman at the base of the yellow stoneless loam, which at this point was 3 ft. 6 in. in depth. It lay in a similar loamy gravel to that of pit I. This, though a solitary example, revived the hope of finding others. On another visit, on 5th November, eight more of our pit I type were given to me by another workman, who stated that they also were found at the bottom of the stoneless loam, and in the stratified gravel.

Patination is by no means always a safe guide to the age of flints, but the fact that the greater number of these tools have their surfaces altered, varying in colour from milky white to bluish grey, proves that at one time they must have lain exposed for a prolonged period upon the surface before such an accumulation of loam could have settled down upon them.

In attempting to gauge the approximate time that it would have taken to bury them to so great a depth, the nature of the covering material must be considered. Had it been blown sand this would have taken a comparatively short time, but the loam being of the nature of brick earth (so Mr. Dewey informs me) and probably laid down under water, a more lengthy period for its deposition is suggested. The contents of the loam which he examined are thus described by him :—‘There are some well-rounded grains of quartz and ironstone, but there are also numerous grains that are sub-angular, and much fine material.’

That the forms of implements taken alone (especially those of the late palaeolithic periods) are no certain indication of the culture to which they belong is plainly seen, as in some instances they reappear after quite appreciable geological changes have taken place. For instance, the presence of Aurignacian types on Magdalenian sites is well known, the Gravette point especially having persisted not only into but considerably beyond the limits of this industry.

There are many of these Gravette points and of other so-called *dos rabattu* implements in our collection. In fig. 6 acknowledged continental Aurignacian forms are represented side by side with their parallels from the Colne Valley. In the Abbé Breuil's striking illustrations of the evolution of the *pointe aurignacienne*, shown in a pamphlet published under the title of ‘Les Subdivisions du paléolithique supérieur et leur signification’, some

fifty or more of these points are figured, and at least ten of these bear a strong resemblance to the Essex tools.

Fig. 6, no. 1, represents the *grande lame étranglée* from Les

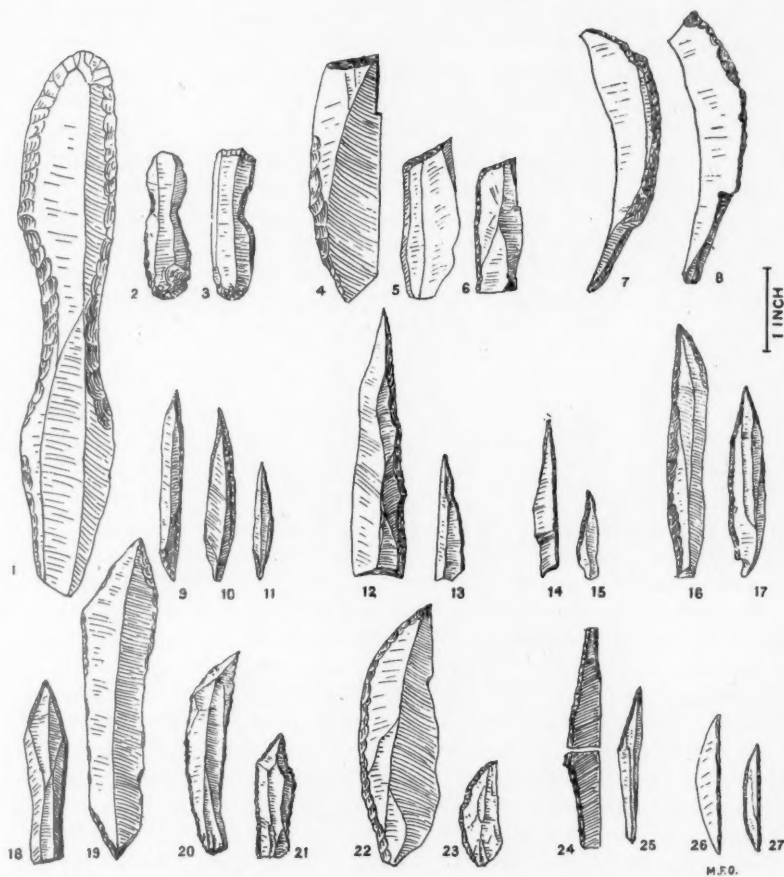


FIG. 6. Continental Aurignacian implements with their parallels from the Colne Valley ($\frac{1}{2}$).

Cottes, Vienne, figured in M. Breuil's pamphlet, and beside it, nos. 2 and 3 are similar implements from the Colne excavation. It will be seen that no. 2 has the same constrictions on either side, but has no scraper end, while in no. 3, where the hollow occurs on one side only, a scraper end is added. In the larger example we have the more complete implement, namely, a double hollow

scraper with combined end-scraper. No. 4 shows an Aurignacian angle burin from Tunisia, also figured by M. Breuil, and no. 5 another shown in Mr. Burkitt's *Prehistory*, pl. iv, 8. No. 6, which appeared to be a similar implement from Colne Valley, resembles both the foregoing in outline, but what I had believed to have been an oblique burin blow has been questioned by some authorities. This does not, however, destroy the fact that there is a real similarity in the shaping of the tools.

No. 7 I brought from Laussel in the Dordogne; it belongs to an upper Aurignacian horizon, and no. 8 from the Colne Valley is almost a facsimile both as to size and fashioning. Nos. 9 and 10 are taken from the Abbé Breuil's illustrations of the evolution of the *pointe aurignacienne*, and no. 11 is the Essex parallel. Nos. 12, 14, and 16 are also from the Abbé's pamphlet, and in two cases from Font Robert. We have replicas in nos. 13, 15 and 17, from Colne. No. 18 is again from Font Robert, and no. 19 from l'Abri Blanchard, Middle Aurignacian, while nos. 20 and 21 are from my collection. No. 22 is a point from Gargas; no. 23 from Colne. No. 24, also in the Abbé's series, shows a hint of the *pointe à cran*, and the same tendency is observable in no. 25, from Colne. No. 26, also Aurignacian, is from Zajara, Spain; no. 27 from the Colne Valley. These almost lunette forms are identical, except that the Colne example is worked all round.

So much for the possible Aurignacian origin of these tools which mainly depends upon the striking similarity of design in many of the artifacts. That they may be Provincial Magdalenian and yet retain these earlier characteristics, is the opinion of some experts. A superficial resemblance to implements found in Mother Grundy's Parlour, Creswell, and in other English caves which have yielded needles, harpoons, etc., appeared to support this view, and the geological position as pointed out by Mr. Reid Moir did not contradict this. From all the facts together, however, it is more likely that this is a modified industry closely following upon pure Magdalenian.

Quite a number of similar industries have been reported from various parts of England. In most cases where these types occur, I think I am right in saying that no very satisfactory geological sections have hitherto been obtained. In the river terrace of the Colne valley, however, we are fortunate in having water-laid gravels and sands which are undisturbed.

Of all recorded English discoveries of the kind, of which I have seen reports, Mr. Sainty's interesting find at Kelling Heath, Norfolk, most nearly resembles ours, though differing so much in situation. With him, hammer-stones are almost unknown, as with

us—hollow scrapers are scarce, borers lacking—we have one only. Not a single arrow or spear-head was found: by this I presume that Mr. Sainty means, of the usual recognized types. Geometric forms are rare at Kelling—we have one only. Many examples of the *lames de dégagement* also occur at Kelling. These very closely resemble the Colne specimens. With regard to the *dos rabattu*

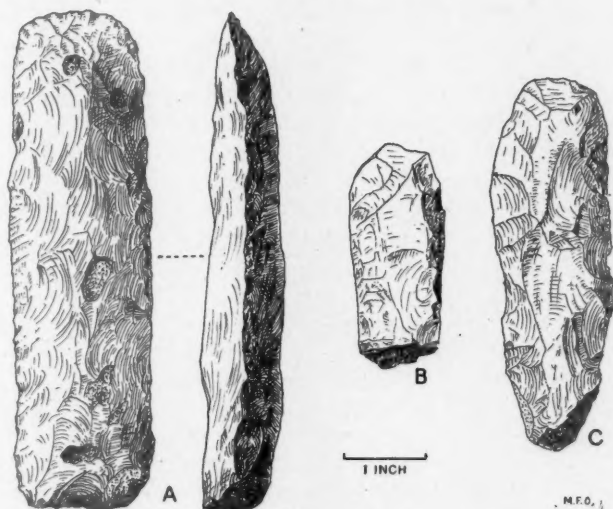


FIG. 7. Chisel-like forms from the Colne Valley ($\frac{1}{2}$).

points, a large number are found at Kelling, the majority being worked on the left side only, as is the case at Colne.¹

One puzzling feature in this excavation is the finding of a straight-sided celt-like implement (fig. 7, A) measuring $6\frac{3}{4}$ in. in length by 2 in. across, and with lozenge-shaped section. It corresponds in colour to the smaller implements, being of a bluish white, but was found by a workman when I was not present. It has been flaked from the edges towards the middle, thus producing a central ridge on either surface. Edge-work has been added afterwards. Another chisel-like flint of somewhat similar patination (fig. 7, C) was found in a spit above the usual implementiferous

¹ Since writing the above, a closer examination of the Kelling implements has led both Mr. Sainty and myself to the conclusion that the Norfolk industry is later than that found in the Colne Valley. The unpatinated condition of the Kelling implements and the presence among them of numerous round thumb-scrapers are some of the points of difference.

level, and a smaller tool of the same character, but broken (fig. 7, B), may also be mentioned.

Black flints with coarse flaking are often found within the top half foot of the excavation in pit I, that is to say, immediately below the surface humus. A peculiar method of diagonal flaking is noticeable on some of them, and is quite unlike the work on the smaller tools. With these I would place two crudely celt-like forms, both of which have been burnt. They also appear to belong to the higher level and may well be neolithic.

The question now arises whether any of these forms usually associated with neolithic times really belong to an earlier culture, and I am much inclined to think that the three strongly patinated examples (fig. 7, A, B, C) were indeed contemporaneous with the small flake-industry which they so nearly resemble in colour. If this be the case, it is possible that we have in this upper palaeolithic industry early forms of the implement which was later to develop into the actual neolithic celt.¹

Although the object of this paper is primarily to describe the flints occurring in the upper gravels, the account is hardly complete without reference being made to an earlier land surface below the loams and gravels at depths varying from 8 ft. to 9½ ft., that is to say, wherever water is reached.

No fauna has at present been found in the upper strata, but at the lower level we have been more successful. A very large tusk of mammoth (whole when discovered, but, alas, now in fragments), portions of two teeth, probably of the same animal, and a single molar each, of horse, large *Bos*, and ibex, have come to light.

It remained to find the associated flint implements, and in May of this year I obtained a fine example of a Solutrean *feuille de laurier* from pit I, at a depth of 8 ft., in white sand overlying the blue loam which is below water level (fig. 8). The flint is of a rich chocolate colour, worked on either side, and very flat underneath, but slightly convex on the upper surface. It is sand-polished, but with no signs of rolling, and was probably left by its maker where it has now been found. The Abbé Breuil, who has examined the implement, assigned it to the middle or lower Solutrian Period, probably the latter. He also drew attention to the method of flaking which had been employed in this case, namely, working the flat side of the flint first. It recalled the technique of Solutrian Man in Prédmost, Moravia, with whose work this specimen should be compared.

¹ A very similar straight-sided celt was found at Grime's Graves, and is illustrated in the *P.S.E.A. Report*, vol. ii, part ii, fig. 49 A, but it does not follow that it was of neolithic origin, as a great mixture of implements has been found on that site.

That Solutré Man ever took up his abode in the eastern counties has been questioned by some prehistorians, but this view has been challenged by more than one East Anglian authority, and Mr. Moir, in a paper contributed to the *Prehistoric Journal* for 1923, gave illustrations of seven fine examples of this work dis-

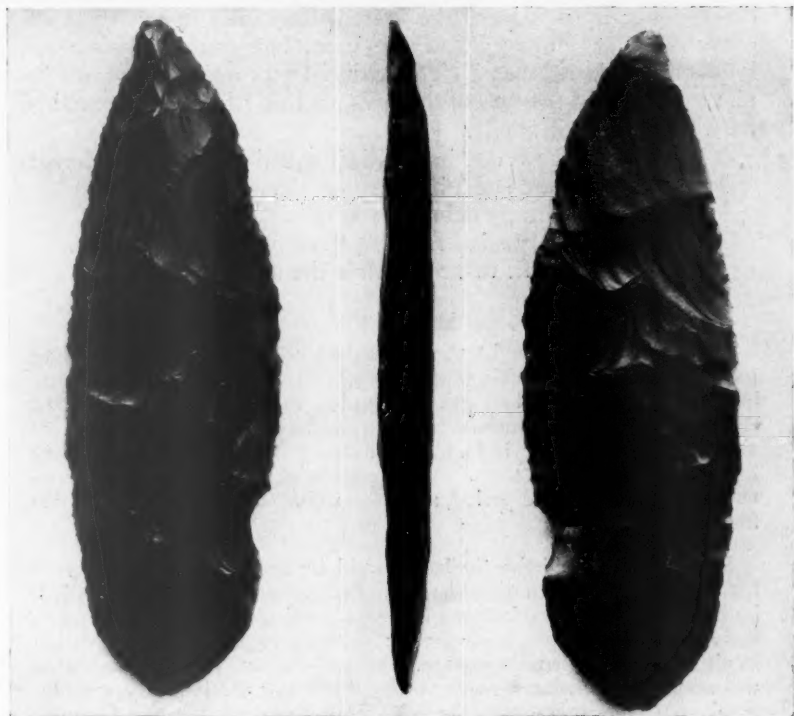


FIG. 8. Solutrean blade, Colne Valley, Essex ($\frac{1}{4}$).

covered in various parts of Suffolk and Cambridgeshire. In some cases these were found under precisely similar geological conditions to those existing in the Colne Valley where the Solutrean blade was obtained. That they are rare is probably due to the fact that water is encountered in the lower parts of the valleys where they occur, so that the smaller implements belonging to this industry would almost certainly be lost.

When no. I gravel-pit was newly opened several years ago, and up to the last six or seven months, Bronze Age urns, which are now in the Colchester Museum, had been discovered. These

were in many cases placed in a reversed position, covering, rather than containing, the cremated bones, with which in a few instances fibulae were found. When removing the earth to bury the urns the Bronze Age grave-digger broke into the loamy gravel, and it was supposed at first that the small implements belonging to this stratum were of the same date as the pots. With a view to determining if such were the case, I examined many heaps of cremated bones found below the urns, but could discover no implements among them. The artificial pits which are shown in pl. LX are beyond the area of the urns, and no Bronze Age remains have been found in pit II.

The sequence, however, in pit I is interesting. So far we have:

Bronze Age as the latest industry on the spot.

Neolithic immediately below the humus.

A modified Magdalenian from 1½ ft. to 3 ft. in the gravels.

Solutrean from 8 ft. to 10 ft. below the surface.

DISCUSSION

Mr. REID MOIR thought the geological conditions justified a late palaeolithic date. The Gipping valley, which probably had the same history as the Colne, had gravel capping the same position as that covered by the loam mentioned in the paper. That gravel was in places 16 ft. thick, and under it had been found flint blades which were in his opinion of Solutré type. The Ipswich gravel was on that hypothesis after the Solutré period, and gave a clue to the date of the Colne flints.

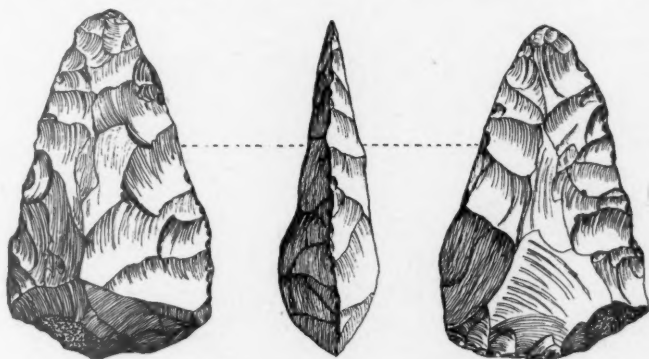
Mr. BURKITT said the Society should be grateful to Miss Layard for an admirable piece of field-work. On first seeing the finds in pit I, he had recognized a mixture of late palaeolithic and later elements, including a leaf-shaped arrow-head; and he thought further excavation in pit II would settle the question. He had long held that La Madeleine was scarcely represented in Britain, and thought the industry was late Aurignac tending towards the Mesolithic, true La Madeleine types being absent. At present there was no name for such a culture, though it agreed in some respect with Miss Garrod's Creswellian. The patinated cones seemed to be of Aurignac date, but the implements with 'blunted backs' were peculiar; something of the kind was known from Scunthorpe, Lakenheath, and Kelling Heath, sites for the most part sandy and over-looking fen. The edge-chipping of small flakes recalled Maglemose and Svaerdborg types, and Aurignac culture might have lasted in Britain till the Maglemose invasion. Though pit I had produced a mixed series, there was decided agreement between the geological and archaeological evidence.

The PRESIDENT conveyed the Society's thanks to Miss Layard for her communication and exhibition of 500 implements.

Notes

Appointments.—Dr. E. H. Minns, F.S.A., has been appointed Disney Professor of Archaeology in the University of Cambridge in succession to the late Sir William Ridgeway, and Mr. Eric Maclagan, F.S.A., Director of the Victoria and Albert Museum, has accepted the Charles Eliot Norton Professorship at Harvard University for the academic year 1927-8 in the place of Professor Gilbert Murray, whose year of office has recently expired.

A Palaeolith from Sidestrand, Norfolk.—Mr. J. Reid Moir communicates the following:—The palaeolithic flint implement described



Palaeolith from Sidestrand, Norfolk ($\frac{1}{2}$).

in this note was purchased by Mr. A. C. Savin, of Cromer, at the sale of the effects of the late Mr. W. G. Sandford, of that town. The specimen was found by Mr. Sandford on the surface of a field upon the top of the cliffs at Sidestrand, Norfolk, and it is through the kindness of Mr. Savin that it is here figured and described. It is here illustrated in three views, and an examination of the form and flaking of the specimen at once shows that it is of Lower Palaeolithic Age, and referable to the end of St. Acheul times. It is further observable that the flint cannot have been long exposed to the conditions present upon a land surface, because its flake-scars exhibit none of the well-known appearances resulting from such exposure, while the interstices of the implement contain, in some cases, the remains of a ferruginous sand, or gravel, in which the implement was at one time embedded, and from which it was brought to the surface, in all probability by the action of a plough. The specimen, which exhibits only one small area of cortex at the butt-end, is unrolled, and its flaked surfaces carry neither incipient cones of percussion, nor striae, and are not patinated. The implement is made from a greenish-black flint, the fractured surfaces

of which show a considerable amount of gloss. The importance of this specimen is two-fold: first because palaeolithic hand-axes in north-east Norfolk are up to the present very rare, and secondly, because the implement is unrolled and unabraded, and would appear to have been derived from a bed of sand, or gravel, overlying the lower glacial hills and contorted drift of Sidestrand. The cliff section at this place shows in places glacial gravel resting immediately under the surface soil, and it seems reasonable to suppose that this gravel forms part of the deposit from which Mr. Sandford's specimen came. The masses of sand and gravel resting upon the contorted drift of the Cromer coast are almost certainly of the same general age as the implementiferous deposits at Whitlingham, Hoxne, Foxhall Road, Ipswich, and elsewhere, and are to be referred to Late St. Acheul times, and the Second Inter-glacial Period of East Anglia. The implement here described would appear to support strongly this correlation.



Carinated urn from Greatham, Sussex.

Carinated Urn from Greatham, Sussex.—Mr. S. E. Winbolt sends the following note:—The urn here illustrated is one of six dug up in a sandpit at Greatham, Sussex, on 14 May 1927. They were about 18 in. down from the surface. It is of grey clay and has a dark grey surface, which is plain except for a cordon below the rim, a band of oblique parallel burnished lines between the cordon and the prominent and high carination, a groove beneath the carination, and two incised lines just above the base. Below the sharp angle there is a slight inward curve above the general curve of the bulge, which falls away steeply to the slightly everted and hollowed base. The measurements are: diameter of mouth, $7\frac{2}{3}$ in.; of base, $2\frac{1}{2}$ in.; circumference of carination, 28 in.; height, $5\frac{3}{8}$ in. (of carination $3\frac{1}{10}$ in.) The side curves are not quite symmetrical. The urn probably dates from the middle of the first century, and it contained charred bones which weighed 10 ounces. It is now in the British Museum as a gift from Mr. Winbolt.

Early Iron Age rubbish pits at Knighton Hill, Berks.—Mr. Stuart Piggott sends the following note:—On the west of the rough road known as Knighton Hill, which runs from the village of Compton Beauchamp, near Uffington, Berks., up the north slope of the Downs towards the Ridgeway and Wayland's Smithy, is situated a large shallow chalk-pit. At the suggestion of Mr. O. G. S. Crawford, F.S.A., I visited the spot in the autumn of 1926, to follow up a find of Early Iron Age pottery. The perpendicular face of the pit exposed in section six pits dug into the solid chalk and now filled with chalky rubble. These were mainly on the south-west face and were of two types: (a) bowl-shaped excavations ranging from 2 ft. to 3 ft. in depth and from 3 ft. to 6 ft. in diameter (four examples); (b) regular well-cut pits, 5 ft. in diameter and 5 ft. deep, with almost perpendicular sides and flat bottoms. From the face of the filling I picked out several bones and rough potsherds. In January 1927 I again visited the site, and found one pit of type (a) completely cut away and three more, one of type (a) and two of type (b), threatened. As men were working there at the time I thought it best to clear the pits out. With the help of one of the men the three pits were cleared and the pottery, bones, and charcoal found carefully collected. All three pits contained bones and pottery in the filling, and on the flat bottom of one pit were found the remains of a hearth of burnt 'sarsens'. Charcoal was scattered throughout the filling.

The pottery has been examined by Mr. Reginald Smith, V.P.S.A., who divides it into three main types, as follows:

- (1) Coarse hard ware with gritty surface. Hallstatt II.
- (2) Soft ware with smooth surface. La Tène I.
- (3) One large black base is Anglo-Saxon, about sixth century A.D.

This came from near the surface in the largest pit. The bones include remains of horse (including two small skulls), pig, goat, sheep, and ox. Several of the large bones have been split open and show knife-cuts. The charcoal from the hearth has been examined at the Royal Botanic Gardens at Kew, and the Director reports that in one case it was possible to identify the wood as alder buckthorn (*Rhamnus frangula* L.). Slight exploratory digging in one of the other as yet untouched pits brought to light Hallstatt pottery and a stone spindle-whorl.

Cinerary urns from Aberdeenshire.—Dr. R. W. Reid, Hon. Curator, Anthropological Museum, University of Aberdeen, communicates the following:—In the very interesting paper on 'An "Encrusted" Urn of the Bronze Age from Wales: with Notes on the Origin and Distribution of the Type', by Dr. Cyril Fox (*Antiq. Journ.* vii, 115), mention is made of fifteen specimens from Scotland, two of which had their location in Aberdeenshire and one in Banffshire. The writer says he has been able to locate forty-eight of such urns and that 'there are most certainly many others preserved in other museums and private collections of which I have no knowledge'.

It is desirable, therefore, that it should be put upon record that in the Anthropological Museum of the University of Aberdeen there are six specimens of cinerary urns, two of which are encrusted and four of

the type which Dr. Fox describes as enlarged food vessels. The urns were found in Aberdeenshire, a district of the north-east of Scotland where many 'short stone cist' interments have been discovered and from which eighteen urns of the drinking-cup or beaker and five of the food-vessel type have been obtained and are now in this museum (pls. LXII, LXIII).

Fig. 1 represents an imperfect cinerary urn in unglazed red clay. It measures 315 mm. in diameter at the level of the shoulder. The encrusted ridge encircling the neck has been damaged on the left of the figure. It contained the fragments of imperfectly calcined bones of a human adult. The urn was found in the parish of Belhelvie, Aberdeenshire. There is no record as to the position of the urn when found, whether inverted or otherwise.

Fig. 2 represents a cinerary urn in unglazed brown clay, with encrusted chevron below the rim and vertical bar ornaments on the shoulder. It measures 444 mm. in height and 410 mm. in diameter at the shoulder. The urn was found in the parish of Skene, Aberdeenshire, in 1914, inverted over fragments of imperfectly calcined bones of a human adult and pieces of charcoal.

Fig. 3 represents a cinerary urn in unglazed brown clay. It measures 370 mm. in height and 306 mm. in diameter at the shoulder. It was inverted over fragments of imperfectly calcined bones of a human adult and pieces of charcoal lying upon a bed of clay. A quantity of peat lay immediately outside the urn and had probably been used in incineration. The urn was found in the parish of Fyvie, Aberdeenshire.

Fig. 4 represents a cinerary urn in unglazed brown clay, with a hoop at the shoulder and another on the body. It measures 278 mm. in height and 276 mm. in diameter at the level of the shoulder. It was inverted over fragments of imperfectly calcined human bones of an adult. In close proximity to opposite sides of the inverted urn lay the half of an axe-hammer finely modelled in very soft sandstone. The urn was found in the parish of Strichen, Aberdeenshire, in 1866.

Fig. 5 represents a cinerary urn in unglazed brown clay, with a hoop below the lip and another at the level of the shoulder. It measures 306 mm. in height and 302 mm. in diameter at the level of the shoulder. It contained fragments of imperfectly calcined human bones of an adult and a flint (?) spear-head with finely serrated edges and measuring 57 mm. in length and 30 mm. in its greatest breadth. There is no record of the position of the urn with regard to the contents. The urn was found in the parish of Tarland, Aberdeenshire.

Fig. 6 represents an imperfect cinerary urn in unglazed brown clay. It measures 176 mm. in diameter at the level of the shoulder which is slightly hooped. It was inverted over fragments of imperfectly calcined bones of a child. The urn was found in the parish of Strichen, Aberdeenshire, in 1866.

The Roman Bastion near Castle Street, now Goring Street, E.C., excavated and destroyed in 1884.—Dr. Philip Norman, F.S.A., communicates the following:—This plan and elevation (pl. LXIV) of a piece of the Roman wall and of a bastion attached to it were bought by me



FIG. 1. Encrusted urn, Belhelvie,
Aberdeenshire ($\frac{1}{4}$)



FIG. 2. Encrusted urn, Skene, Aberdeenshire ($\frac{1}{7}$)



FIG. 3. Urn, Fyvie, Aberdeenshire ($\frac{1}{8}$)



FIG. 4. Urn with halves of axe-hammer,
Strichen, Aberdeenshire ($\frac{1}{5}$)



FIG. 5. Urn with flint (?) spear-head,
Tarland, Aberdeenshire ($\frac{1}{5}$)

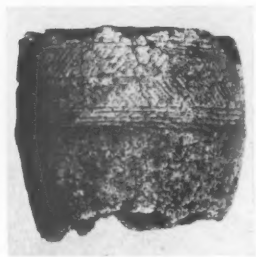


FIG. 6. Urn, Strichen,
Aberdeenshire ($\frac{1}{5}$)

at a recent sale of a final portion of the Gardner or Coates collection at Messrs. Sotheby's. It is not signed, but from comparison with his work elsewhere one can say with confidence that it was drawn by Henry Hodge, who drew the remains found on the demolition and rebuilding of Leadenhall Market in 1880-1, illustrations from which appeared in the paper by Mr. Frank Lambert in *Archaeologia*, vol. lxvi.

No name is given to the bastion here represented, but it is undoubtedly that found close to the south-west end of Castle Street, now Goring Street, in 1884. We read that the discovery occasioned 'an outburst of enthusiasm', but little more was heard on the subject, and no adequate record of it has been known to exist until this plan fortunately made its appearance (see *The Antiquary*, vol. x, p. 134, 1884, and Mr. F. W. Reader in the *V.C.H. London*, where it is marked 21 in 'Plan C, Roman Buildings', etc.). In the contemporary notice we are told that it contained 'large fragments of Roman sculpture'. Mention is also made of 'a large stone coffin' found near the bastion in 1884, but whether exactly on the site is not altogether clear (see *V.C.H. London*, Plan A, 41).

My reason for identifying the bastion represented with that found by Castle Street seems conclusive. Between the plan and elevation the 'Pavement Level, Castle Street' is given, and there cannot have been any other bastion close to Castle Street. The quantity of reused stone, partly of a decorative character, indicated by the draughtsman, makes assurance doubly sure.

It is desirable to draw attention to what strike me as the chief points about the discovery, for so it may be called. First, as regards the wall. It rests on a bed of 'loamy clay', so described on the elevation, what is usually called brick-earth by contractors, which here overlies the gravel, the base of the rubble foundation being 8 ft. 7½ in. below the Castle Street pavement level. Between this and the loam is a thickness of between 2 ft. and 3 ft. of flint and clay puddling. There is the usual red sandstone plinth on Roman ground level outside the wall, and the three rows of Roman tiles are shown inside. Above them, at the usual distance, namely, 2 ft. 6 in. to 3 ft., are three rows of bonding tiles.

Far more interesting is the representation of the bastion, which is evidently much later than the wall, but also shows strong evidence of having been originally Roman. In this, to mention only a few instances, it agrees with that under the vestry at All Hallows, London Wall, the angle bastion at Christ's Hospital, and the Camomile Street bastion found in 1884 and described by the late Mr. J. E. Price, although he clung to the idea that it was medieval. One might add the next bastion to the south-east of Castle Street, found in 1880 with 70 ft. of wall, and marked 19.20 on the *V.C.H.* Plan C, which had what seem to have been marked Roman features, but was poorly described.

Let us consider the elevation and plan. Like others our bastion went down to a considerably greater depth than the wall, the lowest part of the masonry being over 12 ft. below the Castle Street level. A comparison of this with the illustrations of the Camomile Street bastion, which are apparently also from drawings by Hodge, shows that the two were much alike. Each was filled in at the base with a large

proportion of reused stones from earlier Roman buildings; in the latter also were important statues or portions of statues. In the Castle Street bastion the position of a sculptured figure is indicated although it is not drawn, and there are many worked stones of various kinds, one with a running animal carved on it; on another is part of an inscription. There was also pink mortar, but probably not *in situ*. The elevation records one feature which I have never found in association with any but a Roman building, namely, flint and clay puddling under the masonry, and in this case extending some distance beyond it. Between them is a thin layer of chalk; a similar band appeared immediately under the Camomile Street bastion; it was called on the illustration 'chalk and clay puddling'.

The bastion appears to have had a facing of well squared stones, and not very much below the street level, almost in a line with the bonding courses of the wall, in place of one of the stones are two Roman tiles; two others on a lower level are shown inside. Perhaps it is needless to point out that the bastion is merely built up against the wall, not bonded into it; all the upper part has been broken away where it once touched the wall.

I will add a few words about the stretch of Roman wall to the south-east of Goring Street, late Castle Street, as the bastion was immediately to the north-west of it. This was found during excavations in September 1923, and has already been mentioned in the *Antiquaries Journal*, vol. iv. It was certainly not less than 120 ft. long, being behind about five houses in Bevis Marks, which were built almost, in parts I think quite, against it. Like the continuation of the wall by the bastion it rested on loam, which was found to be about 5 ft. thick before the gravel was reached. It was of the usual character, in one place a height of over 6 ft. of wall remained from the plinth upwards, with a lower course of three bonding tiles and another of two. Between the wall and the houses in Houndsditch there was a quantity of black mud, the remains of the medieval ditch; no traces of the narrow Roman ditch were apparent. The wall did not run quite up to Goring Street, a piece having been destroyed when the houses on this side of the street were built, which faced the site of the bastion. The foundations of the wall in all likelihood still run under the roadway.

It seems a pity that the name Castle Street, still used in 1884, should have been changed to Goring Street, which in connexion with the site has no meaning. In Ogilby and Morgan's map of 1677 it was called Castle Court, and became Castle Street about the middle of the eighteenth century. Castle, of course, refers to the bastion, which when the name began must have been clearly visible. A piece of history is thus destroyed, but it is less unfortunate than the renaming of a street on the north side of Newgate Street. This was once called Bagnio Court after the 'Royal Bagnio' erected there in 1679. Later it became Bath Street, and since 1885 it has misled the public by the name of Roman Bath Street. When a street is renamed it would be well now and then to ask the advice of an antiquary.

I venture to add that there is a Castle Street, Falcon Square, doubtless named after the bastion formerly hard by, the site of which is marked by 'Bastion House' in Windsor Court, Monkwell Street.

Roman ring from Bignor.—A coloured illustration was published by Samuel Lysons (*Reliquiæ Britannico-Romanæ*, vol. iii, pl. XXXI, fig. 10), but no description of a fine gold finger-ring found in 1818 near the north boundary wall of the Roman villa at Bignor, Sussex, was given in that volume. His two papers in *Archæologia*, xviii and xix, were published before its discovery, but a posthumous paper (*The Bignor Pavement*, 1885) has no reference to the ring, which is still in the possession of the family and is here reproduced by permission of Mr. Maurice Tupper. The ring weighs 165 grains and consists of a solid hoop of circular section splayed at the ends for attachment to

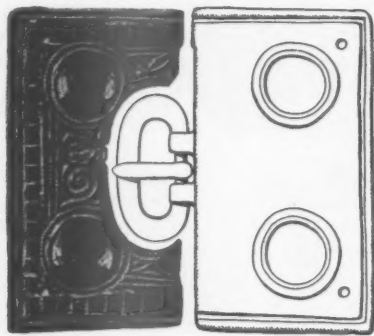


Roman ring from Bignor ($\frac{1}{2}$).

the bezel, and ornamented on the shoulders with three pellets, round which runs a wire that ends in a spiral coil on the hoop. The bezel is oval with a chain pattern in a groove round the edge between two pearly borders, and in the raised centre is set a carnelian intaglio of rough execution with a standing figure, perhaps of Venus disrobing. Deloche figures many rings of the Merovingian period with three pellets on each shoulder, and one of his specimens (*Anneaux sigillaires*, p. 70), shows the spiral winding of wire on the hoop below the shoulder; but the Bignor ring is no doubt earlier, and may be assigned to the late Roman period in Britain, the intaglio not being up to the standard of the second century.

Roman bronze from Kent.—A recent discovery near Maidstone is of interest as bearing on the *Keilschnitt* or chip-carving of Migration times, besides being a rarity in itself. The thin bronze plate here illustrated (see fig.) was found near a wall built of large Roman tiles, on the site of the gasworks at Snodland, a village on the Medway, and is evidently the counter-plate of a belt-buckle, dating from the close of the Roman period in Britain. It is finely patinated and measures 2·85 in. in depth, the position of the two medallions showing that it was on the right of the wearer, attached to the belt by two

rivets for which the holes are provided. Within the oval opening lay the hoop of the buckle which would be attached to a plate of the same general character. The busts and scrollwork were produced by casting, but the pearly borders added by means of a punch, as the marks are visible on the back. The technique has been traced back to the third century, and Alois Riegl figured a buckle-plate of the same character with busts in square panels at the outer angles, from the Castellani collection (*Die spätromische Kunstindustrie*, i, 162); the subject is further treated in his second volume, edited by Zimmermann (p. 14). The original appearance of the buckle is clear from an almost complete set now at Vienna, from Győr, Hungary (J. Hampel,

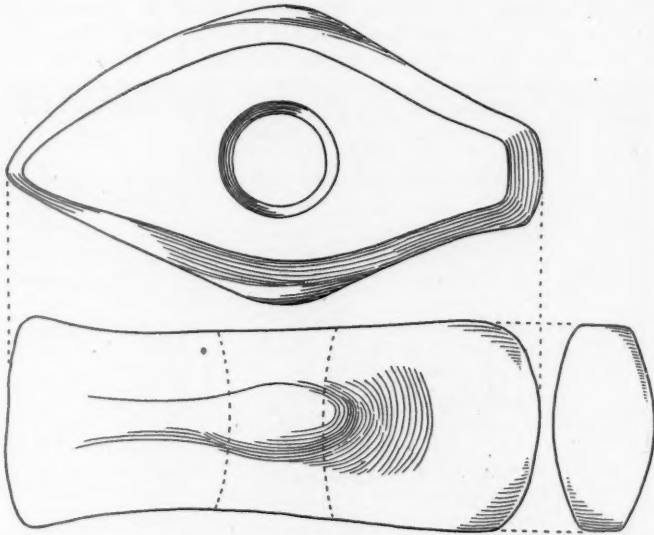


Roman bronze from Kent ($\frac{2}{3}$).

Alterthümer des frühen Mittelalters in Ungarn, iii, pl. 47); but very few of these 'chip-carving' buckles have portrait medallions, and though niello was frequently added to the front by way of contrast to the golden bronze, it is exceptional to find the inlay so well preserved, niello (now pale blue in colour) occupying the ground of the medallions as well as the spaces round the squares of the border. Thanks are due to Mr. G. E. Dibley, of Eastgate House Museum, Rochester, for submitting it for examination.

Axe-hammer from Cheshire.—A novel type of axe-hammer, doubtless of the Bronze Age, is communicated by Miss L. F. Chitty, Local Secretary for Shropshire. It was found in glacial sand at Haslington, east of Crewe, Cheshire, in 1927; and the material has been pronounced fine-grained ophitic dolerite or ophitic olivine diorite by the Geological Survey, the source being unknown. It weighs 2 lb. 7 oz. av. and measures 6.3 in. in length. A slice has been accidentally detached near the cutting-edge, but the surface was re-polished; and apart from a slight asymmetry, the only defect is the absence of the side-rib for two inches across that area. This feature is exceptional, and is more pronounced between the centre and the cutting-edge, dying out towards the butt. Midway between the two ends is a circular perforation, almost cylindrical, and of the two faces

from which it was bored one is almost flat, the other slightly dished. The hammer-end is convex, 1.2 in. by 2.5 in., and shows signs of use. Excellent workmanship and good preservation combine with its exceptional features (the rib and unusual breadth) to make this a



Axe-hammer from Shropshire ($\frac{1}{2}$).

notable addition to the axe-hammers of Britain, the best dated of which were published in *Archaeologia*, lxxv, 77.

Archaeological discoveries in Scotland during 1926.—Mr. A. O. Curle, F.S.A., Local Secretary, sends the following note:—During the past year the archaeological discovery of outstanding importance has been that furnishing evidence for the existence of palaeolithic man in Scotland. Hitherto no remains referable to a period earlier than the Azilian have been brought to light. Following discoveries of the remains of Arctic fauna by Drs. Peach and Horne, of the Geological Survey, in certain cases in a limestone bluff in the neighbourhood of Inchmadamph, Sutherlandshire, in 1889, further research on the same site was undertaken last summer by Messrs. J. G. Callander, James E. Cree, and James Ritchie, D.Sc. The result was that in the outer cave, in a layer of gravel, covered by about a foot of cave-earth, there were found, in a relatively small space, vast numbers of shed and broken antlers of young reindeer, representing more than 400 individuals, as well as remains of bear and other animals. A small pointed implement of reindeer horn was also found in this layer. In an inner cave remains of the cave bear and the Arctic fox were discovered.

A number of the reindeer horns bore plainly traces of man's handiwork, while the geological evidence, the state of fossilization of the

bones, and the nature of the fauna suggested a deposit in Magdalenian or earlier times. Further excavation is to be carried on this summer.

At Rennibister, Orkney, an earth house of unusual character was accidentally revealed by the breaking in of the roof. It was found to be a circular dwelling within a mound, in part artificial, having the roof supported on four stone pillars set in the floor at a distance of some 18 in. out from the wall. The presence of at least twelve skeletons, three of men, three of women, and six of children, raised the question whether this had or had not been a chambered tomb, but the existence of small aumbries in the wall, and the construction of the chamber, which bore some resemblance to that of the Iron Age galleried dwellings of Caithness, pointed to the purpose having been habitation. Certain anatomical peculiarities of the skeletons showed close analogies with those of remains found recently in tombs in Caithness, and indicated that they probably belonged to the post-Viking period. The circumstances of the discovery due to the crushing in of the roof were not such as to facilitate accurate observation.

The Horkstow pavement.—Discovered in 1796, the Roman tessellated floor in the grounds of Horkstow Hall, near Barton-on-Humber, Lincs., has just been handed over to the British Museum by the landlord, Mr. John Hele, of Carlisle, who has made it a permanent loan, as there are legal obstacles to its transfer as a gift. Soon after its discovery it was published in colours by Samuel Lysons in *Reliquiæ Britannico-Romanæ*, vol. i (1813), plates III-V, and a rather fanciful restoration of the three sections was supplied by Richard Smirke, R.A., the architect of the British Museum (pl. VI). The main pavement, much damaged in the interval, was found to be 9 in. to 2½ ft. below the turf, and was lifted in part by means of canvas glued to the tesserae, the cement bedding being in a friable condition. The western square with Orpheus surrounded by birds and quadrupeds is almost lost; the middle square contains a circle with mythological figures, now very imperfect; and the third portion, across the east end, represents a chariot race in the circus with four competitors, a mounted attendant and another dismounted to assist a casualty. This spirited composition is in fair order and is now being mounted for exhibition in the Room of Roman Britain. The colours are not those of the circus factions, as might have been expected, and the Christian significance of the two crosses flanking human heads in the angles of the western square is not so obvious as references in archaeological literature would lead one to expect. They are of the Maltese pattern, whereas those in the border of the Thrupton pavement are crossed lines; but at the period in question the Chi-Rho would have been more in order and does in fact occur in a prominent position on the Frampton pavement in Dorset. In any case, a possible relic of early Christianity was worth the trouble and expense of preservation, and another pavement has been rescued from the accidents of cultivation and the depredations of trippers.

Roman figurine from the City.—The discovery of a pipe-clay bust at Welwyn, illustrated in the *Journal*, ii, pl. v, p. 24, has been followed

by another at the Bank of England, in the area now being excavated for new buildings on the Lothbury side. It is a pipe-clay casting, front and back being from separate moulds and joined (see illustration). The head and feet are missing, but the figure is almost certainly intended for Venus, and a fairly close parallel in the same material is given in Tudot's *Figurines en argile*, pl. 24, pp. 23, 33. There the ornamentation consists mainly of ring-and-dot pattern, whereas the



Roman figurine from the City (3).

London specimen has rings in relief with Maltese crosses and crescents on the back, and studs and rosettes on the front. There is a necklace represented above, and a band across the chest, the right hand resting just below, and the left hanging by the side. The present length of the figurine is $4\frac{1}{2}$ in., and originally it may have been $5\frac{1}{4}$ in. The discovery was communicated by Mr. Q. Waddington, of the Guildhall Museum, Local Secretary for London, and ranks high in the comparatively small series of antiquities recovered from the site. Its place of manufacture was central Gaul (Allier) or Cologne; and standing figures of Venus without the lateral additions are of common occurrence in London, though the shrines to which they belonged are rarely found: one is illustrated in the second Wroxeter Report, p. 19, and references given in the first Report, p. 31.

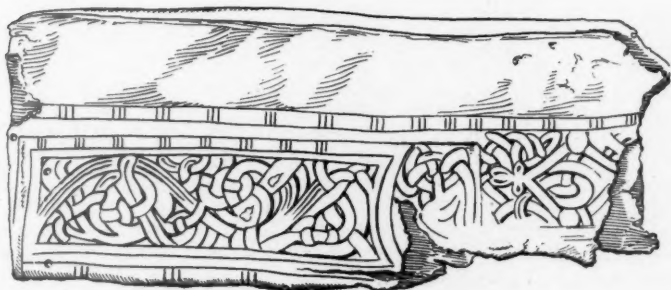
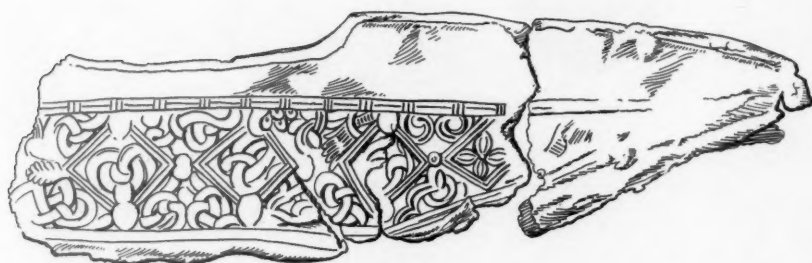
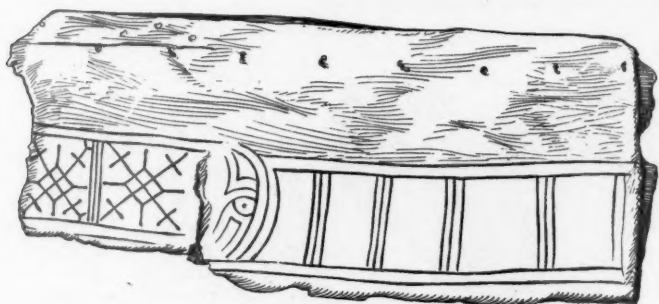
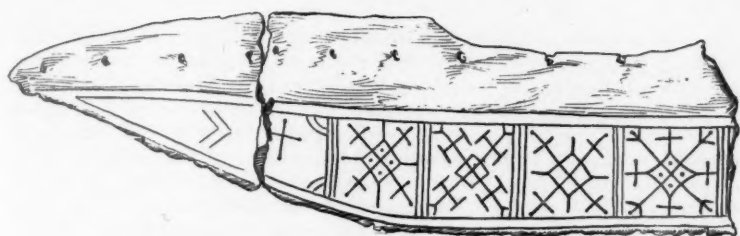
Coins in a flint.—The following details of treasure trove in Kent have been supplied by our Fellow Mr. G. C. Brooke :—A hollow flint containing fourteen gold coins was recently dug up on the Squerries Estate, near Westerham. Twelve of the fourteen coins are of the type figured in Evans, *Ancient British Coins*, B 4-6; they are probably British, being the earliest imitations made in this country of the coins of the Atrebates. Their weights vary between 96 and 102 grains. One coin (Evans A 4-6, weighing $112\frac{1}{2}$ grains) is a coin of the Gaulish tribe of the Bellovaci, and one (Evans B 7, weighing $86\frac{1}{2}$ grains) of the Atrebates. The find is similar to that made near Rochester in 1911 and described in *Proc. Soc. Ant.*, xxiv, pp. 318-20. In both cases a hollow flint served as a money-box. The Rochester coins, which numbered eleven, are now in Eastgate House Museum, and were all probably of Gaulish manufacture (Evans B 7), but the bulk of the Westerham coins are probably British. The date of the deposit is presumably early in the first century B.C.

Viking sheath of leather.—Just too late for inclusion in Dr. Mortimer Wheeler's *London and the Vikings* (London Museum Catalogues, no. 1), a leather scabbard of that period has been discovered in the City of London (pl. LXV). It was submitted by our Local Secretary, Mr. Waddington, and was found in the black mud at a depth of 16 ft. at 99 Cheapside, at the corner of Lawrence Lane. The complete length of about $15\frac{1}{2}$ in. is preserved, and the sloping end suggests the scabbard of a scramasax or sword-knife, the decoration, which can be partly recovered, being consistent with a date about 1000 A.D. In style it agrees with the Jelling series of Scandinavia, but in the middle may be noticed the 'union-knot' which is characteristic of the Ringerike style (1000-1050 A.D.); and the row of lozenges is suggestive rather of the native Trehviddle style, dating from the late ninth century. Of the square panels at the back with cruciform patterns, one contains a lozenge with incurved sides—a favourite device in the Viking period, as on coins of Harthacnut and Edward the Confessor. Two scabbards of much the same form are in Trondhjem Museum (Foreningen til Norske Fortidsmindesmærkers Bevaring: *Aarsberetning*, 1899, pp. 155-6), but the ornamentation is different; and the scramasax, which was originally a Frankish weapon, remained in use longer in this country than in Norway. Pressed leather sheaths of the period are preserved in the British Museum (*Anglo-Saxon Guide*, fig. 129) and at York (*V.C.H.*, ii, 107); but such perishable objects are seldom found complete, and the rescue of one from the mud below Cheapside is certainly an achievement. The drawing (p. 527) shows front and back.

Trefoil brooch from Yorkshire.—A Viking relic of unusual occurrence in this country is reported by our Fellow Dr. Kirk. It consists of a bronze brooch originally gilt in front and tinned or silvered at the back, found about four miles from Pickering in a valley running up from Thornton-le-Dale in the North Riding. There is a projection from the back of each lobe—a loop for hanging (with traces of iron chain), and the stumps of a pierced lug and catch-plate for the pin. The front is much worn, and details of the design are uncertain, but



Viking sheath of leather from the City, back view. ($\frac{1}{2}$)



Viking sheath of leather from the City ($\frac{1}{2}$).

the type is easily recognized as Rygh (*Norske Oldsager*), fig. 671, and is best represented in Norway: a good parallel is figured from a grave at Aarstad, Egersund, Stavanger, in *Oldtiden*, ix, Stavanger Museum, p. 74, and the date is about 900 A.D. A contorted ribbon-like animal fills each of the lobes, the three heads meeting in the centre, where the eyes at least can be distinguished. A good deal has been written about the origin of this form of brooch, and it is now generally admitted that a Carolingian model (early ninth century) took the fancy of the northerners and was copied and recopied till the original acanthus pattern was replaced first by animal forms and later by meaningless lines and dots. The later stages of degradation are well



Trefoil brooch, from Yorkshire ($\frac{1}{2}$) and detail ($\frac{2}{1}$).

shown in Hampel's *Alterthümer . . . in Ungarn*, iii, pl. 323, cf. ii, 428: the present example is neither early nor late, and is in the Borre style, which is discussed by Dr. Shetelig in *Osebergfundet*, pp. 265, 297. Its presence in Yorkshire is easily accounted for by the Danish conquest of York in 867. The classical paper on trefoil brooches is by Dr. Undset in *Forhandlinger i Videnskabs-Selskabet i Christiania*, 1891, no. 3, and plate in vol. for 1890, no. 6; and a specimen with two small bells attached by chains to the loop is figured in T. J. Arne's *La Suède et l'Orient*, p. 30, fig. 10.

The Museum of the Roman Empire in Rome.—Dr. T. Ashby, F.S.A., sends the following note:—Visitors to the exhibition illustrative of the provinces of the Roman Empire at the Baths of Diocletian, which, with a number of other exhibitions of considerable artistic interest and historical importance, was held in Rome in 1911, and readers of Mrs. Arthur Strong's article on the subject in the first number of the *Journal of Roman Studies*, will have realized that Roman Britain was most inadequately represented. It had always been the hope of the organizers of the exhibition that it might become the nucleus of a permanent museum of the Roman Empire, but by the autumn of 1911 Italy was already at war with Turkey; the Great War followed shortly after—

wards; and it is only now that Professor Giglioli has been able to obtain for use as a museum the former convent of S. Ambrogio, close to the Piazza Mattei and the well-known fountain of the tortoises. It contains nearly thirty rooms, which are well lighted, and spacious enough to permit of the arrangement of the collections in their present state; and there is also provision for the custody and consultation of such plans and photographs as cannot be kept permanently on view. It is eminently desirable that the help of British scholars, excavators, and museum officials should be asked in order that Roman Britain may be adequately represented in this new museum of the Roman Empire.

The small British section which was organized in 1911, with funds provided partly from the Royal Commission grant and partly by the Italian authorities, contained some interesting and important exhibits: and what is now necessary is to add to their number in such a way that the British section of what is now a permanent museum may become of sufficient extent and value to be properly representative. At present Britannia shares a room with Germania and Rhaetia. Casts, plans, photographs, and reports are all desirable and will all be welcome: but in order to avoid duplication, it would be advisable that those who desire to assist the scheme should first communicate with the Secretary of the Society for the Promotion of Roman Studies, Miss M. V. Taylor, F.S.A., Haverfield Library, Ashmolean Museum, Oxford.



Roman lead seal impression ($\frac{1}{2}$).

Roman Lead Seal Impression.—Mr. S. E. Winbolt sends the following note:—Four specimens of Roman lead seal impressions from Syracuse, formerly in the Nugent collection, are now in the possession of Col. L. Montague, of Crediton. Impressions similar to three of them have already been reported in *Arch. Aeliana*, 1911, 179 and 1909, 377; *Eph. Epigraphica*, ix, 1296; *C.I.L.* vii, 1269; and *C. R. Smith's Collect. Antiqua*, iii. 197 and vi. 117; these references being kindly supplied by Miss M. V. Taylor. But the one here illustrated seems to be at present unknown:—obverse: OFP∞; reverse: EQS+. This asks for interpretation. I venture to offer the following:—obverse: Officium Praefecti; reverse: Equitum Singularium: that is, The Office of the Commandant of the imperial select cavalry body-guard.

Reviews

Curia Regis Rolls of the reigns of Richard I and John, preserved in the Public Record Office, vol. iii; 5-7 John. 10 $\frac{1}{4}$ x 7. Pp. ix + 479. London: Stationery Office, Adastral House, Kingsway, 1926. £1 12s. 6d.

The present volume contains cases heard between Michaelmas Term 1203 and Easter Term 1205. About a quarter are pleas heard before the king at various places in England; the remainder are pleas heard before the justices of the bench, who usually sat at Westminster, though there is evidence that at one time in 1205 they were sitting at St. Bride's Church in London (p. 306).

At this period in the development of our legal history two sections of the king's court had arisen. But these sections appear to have been two bodies of a similar kind rather than separate bodies to which different types of business were assigned. This division of work had probably arisen on grounds of convenience, and in order that justice might be more speedily administered. At the period covered by this volume the criterion of differentiation between the two bodies is one, not of marked difference in the type of case or procedure, or in the personnel of the justices, but rather the geographical district of the kingdom from which the cases came; for, as is pointed out in the introduction, the counties east of the line York to Portsmouth provided most of the litigants at the bench in London, and the cases *coram rege* relate mainly to the other part of the country which was being visited by the king. Nor can the actual presence of the king be regarded as an essential characteristic in a case *coram rege*; and Professor Holdsworth (*History of English Law*, i, p. 52 n.) notes that 'perhaps the capacity of the king to be present, owing to his being in the vicinity, was coming to be the test, rather than his actual presence'. But the court held in John's reign *coram rege* does seem to have had elements of superiority, due perhaps to its being the parent body, more closely associated with the king himself, and more directly the *Curia Regis*. There are instances in this volume of its reviewing the proceedings of county courts and courts of private jurisdiction (pp. 87, 133). At the same time both the court accompanying the king and the court at London were known as the king's court; and it seems, possibly, a little unsafe to suggest (p. vii) that the justices attached to the king were known as the justices *de curia* in distinction from the justices of the bench at Westminster. The evidence given consists of two writs of the king, one directed to the justices *de curia* (p. 273), and the other to the justices *de banco Westmonasterii* (p. 274). Both these writs occur on a membrane recording proceedings at Westminster, and although the former may be merely a note to record the king's general instructions issued to the justices attending him, further evidence is desirable before the distinction is clearly established. That the justices attending the king were known as *iusticiarii de curia* seems clear from an entry on p. 113; but this does not prove that the phrase

was not also applied at this period to the justices at Westminster in distinction from the justices itinerant, before the phrase *iusticiarii de banco* had become normal. For the elucidation of such questions the publication of these rolls is providing material of great value.

The material itself is provided by the collection of membranes from several different rolls. The arrangement in chronological order has been made with considerable skill, and is the result, not only of an examination of internal evidence, but of a careful comparison of such evidence with relevant fines or the known dates in the king's itinerary. Mr. Flower is again to be congratulated on the care which he is devoting to the publication of this series of volumes.

A case on p. 21, in which blood relations are excluded from the body of recognitors, indicates the movement towards an impersonal jury. But the ordeal by water was still lingering on (p. 144). A Yorkshire case (p. 148) appears to throw important light on the Trusebut pedigree. It is almost incredible to suppose that a parson of Sparsholt had held the benefice for eighty years; but ten of the jurors said so (p. 118). A glance through the index, especially the subject-index, a model of its kind, suggests the scope of material which this volume affords; and those interested in obscure Christian names will find an extensive list of unusual variety.

CHARLES CLAY.

The Libelle of Englyshe Polycye: a poem on the use of sea-power 1436.

Edited by Sir GEORGE WARNER, D.Litt. 8 $\frac{3}{4}$ x 7 $\frac{3}{4}$. Pp. lvi + 126. Oxford: at the Clarendon Press, 1926. 10s. 6d.

Our Fellow Sir George Warner pleads the 'disabilities of advancing age' for any imperfections which we may find in this beautiful edition. But there are no traces of senility about his work, which is worthy of its author and of the elegant form in which the Clarendon Press has chosen to issue it. The proportions of type and margin give a most agreeable page, and the six collotype plates, illustrating two of the manuscripts, English and Burgundian Nobles, the Great Seal of Henry VI, and the seals of Admirals Beaufort and Holland, are very pleasant to look at.

The text, for which all the known manuscripts, nine in number, have been collated, is an advance on Wright's text of 1861, and leaves little room for future editors, unless they can improve on some of Sir George Warner's conjectures. The critical notes are very full, and make it easy to distinguish the successive versions of the poem; and there are enough explanatory notes and a good glossary.

The point of special interest is, however, the introduction, in which the authorship of the poem is attributed with a considerable show of probability to Adam Moleyns, the keeper of the Privy Seal and bishop of Chichester, who shared the unpopularity of Suffolk, and like him was murdered in 1450. The hypothesis, which is admittedly incapable of proof unless further evidence should be found, is extremely attractive. The plan recommended in the poem, the relaxing of military effort against France and concentration on the traditional policy of retaining control of the narrow seas, is consonant with what we know of the views of Suffolk and Moleyns: and the references to the Council and to various members of it are natural in one who was

actually its Clerk at the time when the *Libelle* seems to have been first issued.

The great interest of the poem lies in its recognition that the English cause in France was hopeless without the help of Burgundy, which could only be coerced by economic pressure. Hence the interesting analysis of the course of trade and of the commodities carried by sea from the various countries to Flanders, by intercepting which alone could such pressure be exercised. With an efficient fleet this could be done, and at the same time Calais could be rendered impregnable and Ireland prevented from being a centre of disaffection and of piracy. It is interesting to note that the late General Wrottesley, in his *Crécy and Calais*, bears out the opinion of the author of this poem, asserting that any engineer officer would regard a fortress which could be revictualled by sea, and was protected on the land side by ditches which could be flooded by merely letting in the tide, as impregnable under medieval conditions.

It may perhaps be suggested that *crestclothe* (l. 153), of which the explanation is uncertain, may be the same as the *tela de aresta* which puzzles us so frequently in earlier documents. In both cases the names seem to imply a sort of herring-bone texture. CHARLES JOHNSON.

Corpus Vasorum Antiquorum. Great Britain, Fascicule 3. Oxford, Ashmolean Museum. By J. D. BEAZLEY. 13 x 10. Pp. 12 + 52. 50 plates. Oxford: Clarendon Press. London: Humphrey Milford. Paris: E. Champion, 1927.

In the fifth volume of this *Journal* I had the privilege of reviewing one of the earlier results of M. Pottier's great undertaking of a *Corpus* of Greek vases. I do not therefore propose to repeat what I had occasion to say then in explanation of the scope of this great work. But it is satisfactory to note the progress which has been made in the course of two years. France has added two more fascicules; Belgium, Denmark, Italy, and the United States have all contributed their share; and Great Britain has almost rivalled France, though starting later in the field. The British Museum now has three fascicules to its credit, and in between the second and third Oxford has interpolated the very valuable and interesting contribution which is now under notice.

The Ashmolean is fortunate in having as the interpreter of its treasures Professor Beazley, who has already made a world-wide reputation as a writer on this subject, and who has done far more than any previous expert on Greek vases to transform their study into a real science. In the present fascicule he fittingly confines himself to an account of the red-figured vases of the period 520-400 B. C., on which he speaks with recognized authority as the subject is one that he has specially made his own. Thanks to his researches it is now possible to assign the greater number of the vases of this period to their particular schools, and even to individual painters. The latter are unfortunately for the most part anonymous, but Professor Beazley's ingenious system of nomenclature to some extent restores their individuality, and the 'Berlin amphora painter' or the 'Achilles painter' at his command become living personages.

This part of the *Corpus Vasorum* contains fifty plates, in which are illustrated nearly all the red-figured vases in the Ashmolean, together with some plain black vases which can be associated with them in form and date. The plates are accompanied by full descriptions in forty-seven pages of text, with excellent bibliographies and discussions of technical details.

The descriptions of the vases are, in comparison with other catalogues of the same type, refreshingly unconventional. Professor Beazley does not hesitate to speak of 'blobby letters' or to describe an Amazon as wearing a 'cardigan' (a very good description of her garment), and the title 'passionate love and polite love' for a subject on Plate 46 ably brings out the subtle meaning of what is at first sight a quite conventional picture. Yet, on the other hand, a curious tendency to pedantry creeps in, in the use of Greek words printed in ordinary Roman type which even to scholarly readers may not convey much meaning, such as 'akmotheton' for the block of an anvil, or 'deltion' for a writing-tablet. Is not the English word good enough? Or if the Greek is wanted, it should be printed in Greek type. 'Saccos', by the by, is neither Greek nor English in the sense of a coif (if Liddell and Scott may be trusted).

Most of the red-figured vases in the Ashmolean are already known to archaeologists from Professor Percy Gardner's excellent catalogue, supplemented by papers written for the *Hellenic Journal*, but it is a matter for congratulation to have them collected together and completely illustrated in this form. Every year the labours of the student of Greek vases are being made easier by the appearance of successive fascicules of the *Corpus*, aided by the advances made in photography, which has now learned to overcome the difficulties of reproducing detail from a lustrous surface and of effectively preserving the contrast of red on black. If anything, Professor Beazley's plates suffer from a certain deadness of surface; in comparison with other volumes of the series the latter appear much more alive. This defect also seems to be increased when, as is often the case, the vases are not shown in their entirety; what is gained in truth of detail is lost in general effect when a vase appears minus its neck or handles.

H. B. WALTERS.

Sigilla Agaunensia. Les sceaux des archives de l'abbaye de St. Maurice d'Agaune en Valais antérieurs à 1500. Dessinés et décrits par D. L. GALBREATH. 10½ x 7½. Pp. iv + 80. Lausanne, 1927.

M. Galbreath, to whom antiquaries are already indebted for his *Manuel d'Héraldique* written in collaboration with M. De Vevey, has now added to the debt by publishing this useful catalogue of the seals in the archives of St. Maurice d'Agaune, confining himself to those earlier than the sixteenth century and omitting those of the popes and emperors on which authoritative monographs have appeared. Thus limited the collection consists of 228 examples and includes specimens of practically all types, especially notable being the complete series of those of the abbey of St. Maurice itself. The oldest seal is that of Rudolf III, king of Burgundy, a crude piece of work but showing distinct affinities with those of contemporary emperors. Among the

fine equestrian seals are one of a lady and another of a knight in civil costume, while the armorial seals are very representative.

An interesting point that arises from an examination of this collection is the late date at which the so-called Lombardic capitals were employed, abbot John III of Agaune using them on his seal of dignity as late as 1414, which is about fifty years after they had gone out of fashion in this country. There are indeed at least two examples at St. Maurice of their use at an even later date, but both these are Italian, and the style does not appear to have been discontinued so completely in Italy as in countries north of the Alps. Another matter of some interest is the alteration in the seal *ad causas* of the abbot of St. Maurice (no. 105). This was first used by abbot Jacques in 1296, but abbot Bartholomew in 1349 added a fretty diaper to the background (no. 109). As this is the seal of the abbot and not of a particular abbot it is difficult to understand the object of this addition, since it is not an instance of an abbot differencing for his own use the personal seal of a predecessor of the same name. One other small point may be noted. The author describes a vestment worn by the abbot of Hautcren (no. 137) as a dalmatic with orphreys; it would seem however to be an appressed alb.

The book is very fully illustrated with reproductions of pen-and-ink drawings made with great care by the author; but admirable as most of these are it is yet perhaps regrettable that some photographs were not included, as these give the feel of the original in a way in which drawings, be they never so accurate, can never do. H. S. K.

De förhistoriska Tiderna i Europa. Skildrade av T. J. Arne, Chr. Blinkenberg, A. W. Brøgger, Knud Jessen, K. Friis Johansen, C. A. Nordman och Haakon Shetelig under redaktion av K. FRIIS JOHANSEN. Första delen: Naturförhållanden. Paleolitisk Kultur. Syd- och Östeuropa. 9½ x 6. Pp. 495. Stockholm: Norstedt, 1926. 15 kr.

Several well-known authorities have combined to produce this handy summary in Swedish of existing knowledge regarding (1) Natural conditions in prehistoric Europe (Knud Jessen); (2) Palaeolithic culture (Haakon Shetelig); (3) Prehistoric culture of Greece (Chr. Blinkenberg); (4) Prehistoric culture of Italy (Friis Johansen); and (5) Prehistory of eastern Europe and the northern Balkans (T. J. Arne). The reader will do well to turn first to the table of contents at the end of the book, as it has to do duty as an index till the appearance of Part II, which is to describe the civilization of central, western, and northern Europe from the end of the Ice Age till history begins.

The view taken of the relation between human cultures and the divisions of the Ice Age is best seen in a table on pp. 34-5, where the phases of cold Le Moustier-La Madeleine are all included under the Würm glaciation, and the earliest palaeolithic types are attributed to the Mindel-Riss interglacial. A second table (pp. 54-5) equates the *Dryas* flora with Solutré-La Madeleine, and the Mullerup (Maglemose) culture with that of Mas d'Azil and Tardenois (*Ancylus* period, following La Madeleine). The statement (p. 21) that Scotland was uninhabited in palaeolithic times requires some modification; the Piltown bone, rather like the blade of a cricket-bat, is oddly de-

scribed as a knife (p. 64); and the Levallois flake-implement on p. 72 is not altogether a scraper, but if so, is certainly not the earliest scraper known, as many have been found throughout the Drift.

Knossos and the Minoan chronology receive their due share of attention, and several illustrations are given of finds in the Greek islands. The periods of the leading Greek sites are compared in a diagram on p. 185, and several pages are devoted to the affinities of ancient Greek religion; but as one is here on firmer and more familiar ground, with plenty of quasi-historical material to draw on, the prehistoric student, for whom this work is intended, will give an even warmer welcome to a description of the early phases of culture in Italy and the Balkans. The early Palaeolithic seems to be represented in Italy only by Chelles and Le Moustier types; an Aurignac phase followed, but Solutré is unrepresented south of the Alps, and there is no trace of La Madeleine art or industry. The reindeer is not found south of Venice and the Ligurian Alps, and Italy never had a real Ice Age. The Caspian culture links the early Cave period with Tardenois and Mas d'Azil. Information regarding the early ethnography of the peninsula is brought up to date (pp. 330, 378), and the spread of cremation is attributed to an Italic invasion about 1200 B.C.

Specially useful is a sketch-map showing the principal sites of discoveries in Russia (p. 402), many being villages not found in atlases, and different spellings rendering the search almost hopeless. Perhaps the most amazing prehistoric find in Russia is the arm-ring of fossil ivory engraved with the Greek fret (fig. 281), and attributed to the last phase of the Palaeolithic. Some unfamiliar antiquities are illustrated, including a fragment of pottery from Balachna near Nijni Novgorod (fig. 288) that might easily be mistaken for neolithic ware from Britain. The original source of Hallstatt culture is at present uncertain, but J. de Morgan's suggestion of the Caucasus receives some support from the frequent discovery of Hallstatt types near Kiev, though these date about 600 B.C. and are said to have come from the west. On the other hand, it is stated that the knowledge of iron reached south and central Russia as early as 1000 B.C. (p. 439). Many of the Russian treasures that figure in recent discussions are here reproduced, and there are a few pages on the Slavs, the Scandinavians in Russia, the Finns, and other smaller peoples, whose archaeological productions are not accessible to the majority of students. For this reason the absence of references to the literature is hardly a drawback, and all but the specialist will be content with this well-printed and richly illustrated handbook, containing as it does much of the archaeological output of the present century. Even those to whom the language is an obstacle would derive much benefit from a study of the illustrations, the sources of which are methodically acknowledged.

REGINALD A. SMITH.

Select Greek Coins. A series of enlargements illustrated and described by GEORGE F. HILL. $13\frac{1}{2} \times 10\frac{1}{2}$. Pp. 64 with 64 plates. Paris and Brussels: Vanoest, 1927. £3 3s.

This is a collection of some two hundred and seventy coin-types photographically enlarged three diameters and grouped by subjects

and in chronological sequence. The text gives a brief account of the principles of design in Greek coins, and a detailed description of each piece in the plates. The work is technically faultless, as one expects from a master of numismatics and of bookmaking, and Mr. Hill anticipates and answers in his preface the aesthetic criticisms that his experiment provokes. There is nothing left, then, for a reviewer to discover. Though such a series of enlargements has not been published hitherto, the sight is less novel to a numismatist than to a layman, for the ordinary person seldom has the skill to see an object whole and undistorted through a magnifying-glass. Mr. Hill has really given us a numismatist's view, though not with the numismatist's purpose: his intention is expressed in the title of the French version of the book, *L'art dans les monnaies grecques*. Whether we like the general effect or not, we can now see many things (besides the borders, ornaments, attributes, and symbols) that we have never noticed before. Weak designs may go to pieces under the strain, but their *disiecta membra* are interesting and instructive. The strong ones undoubtedly gain in meaning as they grow in size. A silver stater comes about three inches across: its obverse type is therefore about the size in which an ordinary head is reproduced; reverse designs, particularly of Sicilian coins, look like great temple-metopes. Coins thus become new documents in the history of sculpture, authentic, dated, unbroken, unrestored. It is indeed a successful experiment that adds this fresh and immensely varied store to the scanty relics of the larger art, and surprising, but fortunate, that nobody had done it before.

E. J. FORSDYKE.

The History of the Franks by Gregory of Tours. Translated with an introduction by O. M. DALTON. In two volumes. 8 $\frac{3}{4}$ x 5 $\frac{1}{2}$. Pp. xii + 447; 660. Oxford, at the Clarendon Press, 1927. £2.

It is just twelve years since our Fellow Mr. Dalton produced an attractive translation of the letters of Sidonius Apollinaris, and provided it with an admirable introduction and commentary for the benefit, not only of the general reader but, more especially, of the future historian of fifth-century Gaul. Perhaps he was originally attracted by Sidonius's hendecasyllabics which describe in some detail, if not with perfect clearness, the new Church of Bishop Patiens at Lyons, and we may guess that he had likewise searched through Gregory of Tours for descriptions of churches, and of works of art. If so, we can only be grateful that he went further and provided exactly what the historian who has constantly to use an author like Gregory needs—an accurate translation, a full commentary, and a good index. Wilhelm von Giesebrecht's translation and introduction are of course good, but how unattractive when compared with this admirable production of the Clarendon Press and Mr. Dalton's superior arrangement and infinitely greater detail.

We are given a good picture of Gregory the man: the Gallo-Roman aristocrat, with his good breeding, his sense of family obligation in undertaking the office of bishop, his courageous stand against king and noble in the interests of the Church and of his own flock, and, equally characteristic, his admiration of that rhetorical education which

had been the pride of many a Gallic bishop since the great days of Ausonius. It is very easy to exaggerate Gregory's ignorance of letters; we know that he had some acquaintance with Virgil, Sallust, and Aulus Gellius, and, from a chance reference by Fortunatus, we gather that he wrote verse. As Manitius remarks (*Neues Archiv*, xxi, p. 552), we should be able to gain a more adequate idea of Gregory's Latin if some of that verse had survived.

How the Bishop of Tours admired a rhetorician is clear from his account of the baptism of Clovis by St. Remi. 'As he entered to be baptized the saint of God spoke these words with eloquent lips: "Meekly bow thy proud head, Sicamber; adore that which thou hast burned, burn that which thou hast adored". For the holy Remigius, the bishop, was of excellent learning, and above all skilled in the art of rhetoric.'

After a criticism of Gregory's historical methods, and a brief note of the manuscripts and printed editions, Mr. Dalton gives an account of the chief characters—those incredible figures that pass through Gregory's pages—Clovis and his sons; the grandsons—Chilperic, 'the Nero and Herod of his time' and yet a man who loved letters and the arts; Guntram, 'ce bon roi à qui on ne reprochait que deux ou trois meurtres', and who was ultimately canonized; and finally the queens and royal ladies, Radegund, Brunhild, Agnes, and Fredegund.

It is hard to think that Mr. Dalton does full justice to Venantius Fortunatus as a poet or as a man, but this is after all a matter on which opinions have always differed. His bibliographical note on p. 83 might have been supplemented by reference to Köbner's *Venantius Fortunatus, seine Persönlichkeit und seine Stellung in der geistigen Kultur des Merowingier-Reiches*, Leipzig, 1915, which contains much important and interesting material for a just estimate of the man and his work.

The other sections of Mr. Dalton's book deal with (1) the Merovingian kingdoms, communications, cities, towns, etc., and state organization. (2) The Church, superstitions, organization, church buildings secular and monastic, and monasticism and asceticism. (3) The last section deals with social organization, knowledge and culture, and pleasures and amusements. Thus as complete a picture of the Merovingian age is given as the sources provide, for Mr. Dalton draws his illustrations not merely from Gregory but from all the other available sources.

His description of church fabrics and furniture, etc., is, of course, authoritative, and there are pronouncements which seem to have a special significance. One example (i, 425) must suffice. 'Instead of local versions of an art in which the principle of growth was dead, the subjects of Clovis and his descendants witnessed the penetration of the West by those vigorous Syrian and Iranian influences which in the East had given so new and foreign a style to Christian art. Their architecture may have moved on old lines, uninigorated by the experiments succeeding each other with so much brilliance at the opposite end of the Mediterranean. But it is probable that in its interior decoration they saw applied new methods of representation and ornament, developing on lines other than those of the old Gallo-Roman art, and, if rude, possessing more vitality and strength. Long before Clovis had

conquered Aquitaine, the Visigoths had aided in bringing in the new oriental ideas. It is now believed that Sarmatian craftsmen probably accompanied the Goths when they moved west from the south of Russia at the end of the fourth century; while the Syrians and Armenians coming into the country through the port of Marseilles certainly brought with them new ideas of religious representation, as well as works of art illustrating their practical expression. Gregory of Tours and his contemporaries may well have had before their eyes paintings in the Syro-Hellenistic style at the time prevalent in Antioch and other East-Christian cities.

Mr. Dalton gives us a good deal of information on liturgical matters. In his effort to avoid the obscurity and uncertainty in which liturgicologists are wont to wrap these questions, he may perhaps be occasionally more precise than the state of our knowledge really permits. I would suggest that there is a good deal to be said for the theory that the Ambrosian rite was not of oriental derivation (i, 335), but was, as Edmund Bishop says, 'really Roman at bottom', and that there were direct oriental influences strongly exercised on Spain and Gaul which did not leave their mark only on religious art (cf. Wilmart, *Revue Bénédictine*, xxviii (1911), p. 387, note 2).

The translation of Gregory contained in Mr. Dalton's second volume is admirably clear and we hope that it will find many readers. The work as a whole will be, as we have already said, indispensable to the historian of Merovingian times, and students would do well to read it by the side of Sir Samuel Dill's brilliant volume. F. J. E. RABY.

Northumbrian Crosses of the Pre-Norman Age. By W. G. COLLINGWOOD, M.A., F.S.A. 12½ x 10. Pp. vi + 196. London: Faber & Gwyer, 1927. Price 30s.

Students of pre-Norman monumental art in England have for many years been under a deep debt of gratitude to our Fellow Mr. W. G. Collingwood. His accurate and painstaking researches on the subject of Northumbrian crosses, published mainly in the Proceedings and Transactions of the northern archaeological societies attracted widespread attention, and we learnt to expect from him brilliant reconstructions of fragmentary monuments, together with broad and competent treatment of the general problems, evolutionary, artistic, and chronological. When, therefore, it was known that Mr. Collingwood was preparing a volume in which the work of nearly thirty years was to be collected and recast in the light of his ripe experience, the work was eagerly looked forward to. We desired for example, to read his exposition of the relation between the great monuments of Bewcastle and Ruthwell and the lesser works of the same school.

The book, entitled *Northumbrian Crosses*, has now appeared. It is lavishly illustrated with the author's notable drawings of the monuments. It reviews in 184 quarto pages the whole series of Northumbrian crosses from the primitive work of the seventh century, through the magnificent eighth-century art of the Anglian period, to the decline in the eleventh century; and it is excellently indexed. Special praise should be given to the printing and the format of the volume. *Northumbrian Crosses* is an admirable example of that most hopeful

sign of the times, the revival of the art of fine printing under strictly commercial and competitive conditions. The type is beautiful, admirably spaced and set up; the book a pleasure to handle and to read. The archaeologist, student of art, or historian, who purchases it for thirty shillings, gets very good value for his outlay.

Mr. Collingwood's aim is to place the ancient crosses of his area in chronological sequence, and to study the art they represent as phases of a process. He suggests that stone crosses developed in the north out of the rude pillar stones exemplified at Whithorn in Galloway, and that the early crosses (those of the sixth century, which he calls staff-roads) were of wood, decorated. Out of these latter were developed such forms as the famous Gosforth Cross; the carved boss in the centre of so many of the stone crosses may, moreover, be a reminiscence of the trenail which held the horizontal arm of the wooden cross in position.

The period within which the Anglian art of the crosses developed and reached maturity, is, in the author's opinion, the hundred and thirty years which lie between the death of Bede and the Danish Conquest in 867. The author dates the Bewcastle and Ruthwell Crosses not in the late seventh century wherein most of us had thought they were safely set, but late in the eighth, regarding the Acca Cross of c. A.D. 740 as the first of the series of fine works of the period. This surprising judgement is well buttressed with argument and requires careful consideration; it involves us in great difficulties, however, since it compels us to place the whole of the artistic output of sculpture in Anglian Northumbria within a period of decline, political and moral.

A full analysis shows the structural and artistic development of the Anglian cross. The work of different schools is recognized—Hexham, Hoddam, Ripon, and others; the line of research opened up by this achievement is important, and should prove productive.

The decline of the Anglian tradition, its survival into the Viking period and fusion with the new motives introduced as a result of the Danish Conquest, provide a fascinating story well documented with illustrations, and the tale is carried down to the twelfth century, when the style was effaced by the Romanesque.

Some indication has been given of the range and interest of this book, but only perusal can indicate its value as a contribution to the study of the Anglo-Saxon period. Though it deals primarily with Northumbrian art, the writer frequently turns aside to illustrate a point by reference to Welsh, South English, Irish, or Scottish examples, and many valuable hints on the chronology and typology of monuments in districts other than Northumbria will be found in his pages. It is, moreover, of great interest to the historian; close study of the monumental art of northern England can, it is clear, throw light on racial movements and political and ecclesiastical developments in the ill-documented period covered by the survey.

It is to be hoped that this admirable volume will get into the hands of designers, and teachers and students in art schools, and that it may in particular influence the development of the art of our sepulchral monuments.

C. F.

The Hill Figures of England. By Sir FLINDERS PETRIE, F.R.S., F.B.A. 12 x 10. Pp. 16 with 9 plates. London, Royal Anthropological Institute, 1926. 5s.

This excellent monograph briefly reviews (in sixteen pages) the three hillside figures which are of unknown and undoubtedly early date, and also two crosses which may be prehistoric. All are situated on the chalk downlands of South England. The three figures, the Long Man of Wilmington in Sussex, the Giant of Cerne in Dorset, and the White Horse of Uffington in Berkshire, are of surpassing interest. Sir Flinders calls them, justly, the most striking of our undated antiquities; he remarks that they have never received any adequate attention, and that, with the exception of the White Horse, they have never been accurately surveyed. Carefully drawn plans of these figures are perhaps the most valuable part of his monograph.

The neglect referred to by the author may be partially due to the apparent impossibility of determining the age of the figures. A useful contribution to their study in this volume is a description, accompanied by plans, of certain earthworks in their neighbourhood, careful examination of which may yield material throwing light on the date and significance of these symbolic representations of man and beast. It is to be hoped that excavation work with this object may be undertaken, but it must be by an archaeologist very amply equipped for the task.

Perhaps the best known of the three figures referred to is the White Horse of Uffington. It is on record that the hill on which it is situated was known as 'White Horse Hill' in 1084 or earlier, and certain folk-customs connected with the site, mentioned by Sir Flinders, are indicative of high antiquity.

The Long Man of Wilmington holds two staves, the Cerne Giant has a club. The anatomical treatment of the two figures differs materially, and suggests different cultural origins. The neighbourhood of the Long Man shows no earthwork suggestive of close connexion with the figure, but in the maypole square and earthwork just above the Giant we appear to have a construction deserving of the most detailed and careful examination. Other earthwork on this and the opposite hillside is referred to by the author, but in discussing it he pays insufficient heed to his own remark, that what has been written about these figures in the past, has been largely on insufficient evidence. The chain of evidence by which he seeks to establish the probability of early Bronze Age date for the Cerne Giant is not strong enough to require, at this stage of our knowledge of this figure and its associations, serious consideration, but it is evident that the field worker who endeavours to determine the age of the Giant should not neglect the earthworks on the northern-facing hill-slope, to which he draws attention.

The reviewer has from two sources received information of the existence as late as 1914 of a fertility cult associated with the Giant. Such is not mentioned in the present monograph, and it would be very useful if any folk-lorist or anthropologist possessing evidence which may establish the existence of such a cult, would publish the facts.

The two crosses, Bledlow and Whiteleaf, are obviously of less intrinsic interest; the author comes to the guarded conclusion that they may be pre-Christian.

Sir Flinders lists the White Horses and other hill figures made in modern times; this list is useful on account of the confusion between modern and ancient examples, which is frequently met with. C. F.

The Corridors of Time. I. *Apes and Men.* By HAROLD PEAKE and HERBERT JOHN FLEURE. II. *Hunters and Artists.* By the same. 8 x 5½. Pp. vi + 138; vi + 154. Oxford: at the Clarendon Press, 1927. 5s. each.

As the four tables indicate, an attempt is made in the first volume of this Oxford series to trace the course of events from the beginning of the geological record to the end of the fourth (Würm) glaciation, and severe compression has been necessary. Two chapters are devoted to the Evolutionary process and the Descent of Man, which all but professed biologists will find stiff reading. The Ice Age, flint implements, and the skeletal remains of man are also discussed with a fair allowance of illustrations, but these are of unequal merit, and fig. 8 might well have been omitted. Fig. 29 is not very lucid, and fig. 35 is not only a poor drawing, but of doubtful validity; and another defect is the omission of scales, especially necessary in figs. 40, 45, and 47. Several sketch-maps help to clarify the glacial problem, but are the authors sure that in the days before Le Moustier (fig. 46) the British Isles had their present outline and were separated from the Continent? The hope expressed in the preface has been largely fulfilled—'that a considerable portion of the present work represents a fairly widespread consensus of opinion'; and it may be noted that the French view that Le Moustier straddles the Würm (not the Riss) glaciation is here adopted; but it will be increasingly difficult to defend the assignation of the Intensely chalky boulder clay, the Chalky-Kimmeridgic boulder clay, and the Cromer glacial deposits to three separate glaciations. With due precautions it must be admitted, our two Fellows equate the eoliths of Kent with the Lenham beds, and recognize the Foxhall industry as contemporary with the Crag: this shows a welcome diminution of prejudice, and appreciation of recent advances in British archaeology.

The second volume of the series takes up the story and closes with a sketch of the Shell-mound culture of Scandinavia, about 4000 B.C. The date suggested for the culmination of the last great glaciation (Würm) is about 23000 B.C., an estimate admittedly conjectural, but the second maximum of that glaciation (after the Laufen retreat) is said to be dated 13500 B.C. 'with fair precision'. The Achen oscillation which followed is here equated with the Gothiglacial retreat in the Baltic, ending about 10000 B.C. when, according to a prevalent opinion, the culture of La Madeleine disappeared, but the table on p. 107 places the closing stages (La Madeleine 5 and 6) in the Yoldia period, ending about 6500 B.C. This scheme accommodates Mas d'Azil and Tardenois between 6500 and 4000 B.C., approximately the Ancyclus period of Scandinavia. The intricacy of the subject is exemplified in the prevailing uncertainty whether the known elevations of the land took place in warm or cold periods, and the problem is very properly stated but not discussed in detail. The authors have with some others long deprecated 'the now fast diminishing tendency to

make the name "Cro-Magnon" cover a number of variants', and a catalogue of the better-known skulls and skeletons of the Upper Palaeolithic Age is given on p. 71, with an appendix on p. 131. 'Chattel art' is preferred to 'home art' as a translation of *art mobilier*, and examples are given of sculpture, engraving, and painting, a fair selection from a mass of published material. In view of national susceptibilities, figs. 29, 30, for instance, should be acknowledged as a loan from de Mortillet's *Musée préhistorique*, and *pointes d'Aurignac* is the proper French form (p. 46): on p. 56 for ceremonial 'stave', read 'staff'; but such details hardly impair a painstaking attempt to give an all-round account of later Palaeolithic times, and these two volumes inaugurate a series that will no doubt be widely appreciated.

REGINALD A. SMITH.

Kulturgeschichte des norwegischen Altertums, von A. W. Brøgger. 7 $\frac{3}{4}$ x 5 $\frac{1}{4}$. Pp. 246. Oslo, Instituttet for Sammenlignende Kulturforskning. Aschehoug & Co. (W. Nygaard), 1926.

This work by an Hon. Fellow of this Society is a German version of the Norwegian *Det Norske Folk i Oldtiden* (1925), and the absence of illustrations shows that it deals rather with the economic than the archaeological aspect of early Norway. The peculiar conformation and climate of the country have controlled development ever since the retreat of the Baltic glaciation made it available for human occupation, and one of the author's main contentions is that hunting and fishing remained the chief pursuits of the population long after agriculture and cattle-raising, industry and commerce had raised Denmark, for instance, high in the scale of civilization. Bronze, for want of the raw materials, could not be manufactured locally, and its importation as a luxury does not, in the scheme here expounded, justify a Bronze Age in Norway. Such a term is only applicable where bronze has passed into common use for tools and domestic utensils; and statistics show that in Norway iron was the first metal that became endemic, and that not in the periods of Hallstatt and La Tène, but in what is called the Roman period, though the Romans never set foot in the country. It was then that clearings could be made in the dense woodland of the interior with the iron axe, which gave an impetus to agriculture and cattle-raising away from the coastline. Norway has yielded only four arrow-heads of bronze and is in this respect comparable to Britain, where flint was used for the purpose throughout the Bronze Age. The discovery of a stone axe-hammer of local neolithic type in a Viking grave at Hardanger recalls the Claughton Hall find in Lancashire; and a perforated stone mace-head is recorded from a contemporary burial at Ullensvang. The psychology of rock-engravings and paintings is briefly discussed, and as a class these belong to the Early Bronze Age of Denmark, being the artistic expression of both coastal and inland cultures. Runes came to Norway from Denmark in the third or fourth century of our era, before they spread to western Europe; and about A.D. 500 there were two elements of Teutonic origin in the country—the descendants of those who lived in the local Stone-Bronze Age, and the immigrants who took part in the great migrations of the third to sixth centuries, when the local production of iron began and the forests

were no longer impassable. Such results may be surprising to those who perhaps unconsciously apply to the north the cultural standards of the south or west of Europe, and are indeed not unchallenged in Norway itself; but apart from a few misprints, the only obvious inaccuracy in the book is the attribution to de Mortillet of the term 'palaeolithic' (p. 217). Sir John Lubbock, the first Lord Avebury, invented it in 1865, four years before the French classification was first published.

REGINALD A. SMITH.

Periodical Literature

Archaeologia, vol. 76, contains the following papers:—Prehistoric and Roman settlements on Park Brow, by G. R. Wolseley, R. A. Smith, and Lt.-Col. W. Hawley; The Armourers' Company of London and the Greenwich school of Armourers, by C. ffoulkes; A Saxon village at Sutton Courtenay, Berkshire (2nd report), by E. T. Leeds; Flint arrow-heads in Britain, by R. A. Smith; The origin of the Scandinavian style of ornament during the Migration period, by Haakon Shetelig; Some rock-cut tombs and habitation caves in Mallorca, by W. J. Hemp; The bosses on the vault of the quire of Winchester cathedral, by C. J. P. Cave; Wall-paintings in Croughton church, Northants., by E. W. Tristram and the Provost of Eton; Excavations at Chun castle in Penwith, Cornwall, by E. T. Leeds; The excavation of a tumulus at Lexden, Colchester, by P. G. Laver; Excavations at Merton priory, by Lt.-Col. H. F. Bidder and the late Rev. H. F. Westlake; The Great Astrolabe and other scientific instruments of Humphrey Cole, by R. T. Gunther.

The British Museum Quarterly, vol. 2, no. 1, includes the following papers:—Chinese frescoes: The Eumorfopoulos gift; Sumerian stone sculptured vases; Babylonian antiquities; A Greek vase of Dipylon style; Roman portrait bust of the third century; Persian pottery; Seals and rings (Croft Lyons collection); Chelsea porcelain group; Continental porcelain group.

The English Historical Review, July 1927, contains the following articles:—The Firma Burgi and the Commune in England, 1066–1191, by Prof. James Tait; The origins of the proposed election of a King of the Romans, 1748–50, by D. B. Horn; Lord William Bentinck in Sicily, 1811–12, by Miss H. M. Lackland; The seals of the two benches under Edward III, by B. Wilkinson; Article vii of the impeachment of Michael de la Pole in 1386, by N. B. Lewis; A letter of Clarendon during the elections of 1661, by K. G. Keiling; Three eighteenth-century politicians, by L. B. Namier.

History, July 1927, contains the following articles:—The teaching of history in France, by Prof. C. V. Langlois; Some recent works on monasticism, by W. A. Pantin; The birth of the London rate-payer, by W. G. Bell; Some stages in historical understanding, by the late E. A. Fulton; Historical revisions, xlii: the movement of population during the Industrial Revolution, by J. L. Hammond.

Bulletin of the Institute of Historical Research, June 1927, contains the following articles:—The use and abuse of capital letters, by A. F. Pollard; Anglo-French diplomatic relations, 1558–1603, by F. J. Weaver; Select documents: ix, Council memoranda in 1528: x, Some passports of 1810; Summaries of Theses: xxi, The relations of Henry VII with Scotland and Ireland (1485–97) illustrated from episodes in the life of Sir Henry Wyatt, by Agnes Ethel Conway: xxii, The borough franchise in the first half of the seventeenth century, by Winifred Taffs: xxiii, The struggles of the European powers for Guiana, 1667–1713, by Mary Fisher: xxiv, The liberty of the subject in England between 1803 and 1832, by H. P. Bridges: xxv, The struggle for the freedom of the Press, 1819–32, by W. H. Wickwar.

Antiquity, vol. 1, no. 2, contains the following articles:—Where did Man originate? by E. A. Hootton; Place-names and archaeology, by A. Mawer; The Etruscans, by D. Randall MacIver; Christian Vikings, by W. G. Collingwood; 'L'Affaire Glozel', by O. G. S. Crawford; Ancient writers on Britain, by C. G. Stevens; The 'Works of the Old Men' in Arabia, by Flight-Lieutenant Maitland; The Aryan problem—fifty years later, by A. H. Sayce. The number also contains the following shorter notes:—The tomb of Queen Hetepheres; Palaeolithic man in Scotland; The Lake of Nemi; Syria: the work of the Department of Antiquities in 1926; Rock paintings in South Africa; Timber circles; Gold Helmet said to have been found at Harlaxton in the eighteenth century; The Devil's Ring and Finger, Mucklestone, Staffs.

Journal of the Royal Institute of British Architects, vol. 34, no. 18, contains the first part of an article on Nicholas Hawksmoor, by H. Avray Tipping.

The Burlington Magazine, June 1927, includes the following articles:—A Syrian glass goblet, the Luck of Edenhall, by W. B. Honey; Velvets of the Renaissance from Europe and Asia Minor, by Nancy Andrews Reath.

The July number includes articles on Greek Icon painting, by J. Stuart Hay and L. Bower, and on Sheldon Tapestries for the Royal Scottish Museum, by W. Cyril Wallis.

The Connoisseur, July 1927, contains an article on Wren's Restoration of Westminster Abbey, by E. Beresford Chancellor and L. E. Tanner.

The Geographical Journal for July 1927 contains an article on the relations of the Thames and Rhine and age of the Strait of Dover, by Prof. J. W. Gregory.

The Journal of Hellenic Studies, vol. 47, part 1, contains the following articles:—The Herbal in antiquity, by Charles Singer; The 'Proskynesis' and the Hellenistic Ruler cult, by Lily Ross Taylor; The Antimenes painter, by J. D. Beazley; A series of terra cottas representing Artemis found at Tarentum, by D. B. Harden; The travels of 'Palmyra' Wood in 1750–1, by C. A. Hutton.

Proceedings of the Huguenot Society of London, vol. 13, no. 4, contains the following papers:—The family of Fauquier, by G. Woods Wollaston; Huguenot settlements in North America, by R. A. Austen-Leigh; École de Charité Française de Westminster, by Susan Minet; The Huguenot regiments (supplemental notes), by W. H. Manchée; The family of

Rambouillet de la Sablière, by Captain T. C. Beckett; The ministers of the church at Sandtoft, by W. Minet; Some further notes on the churches at Guînes and Marcq, by W. Minet; Louis Crommelin and the First Linen industry.

The Library, vol. 8, no. 1, contains the following papers:—*The Birth of Mankind or the Woman's Book*: a bibliographical study, by Sir D'Arcy Power; *Keep the Widow Waking*: a lost play by Dekker, by C. Sisson; Two hitherto unrecorded editions of *Robinson Crusoe*, by H. C. Hutchins; The Library of Dover priory: its catalogue and extant volumes, by C. R. Haines; The first typefounding in Mexico, by D. C. McMurtrie.

Miscellanea Genealogica et Heraldica, vol. 6, part 5, contains the following articles:—Payne of East Grinstead; Roberts of Kent; Wingate of Sharpenho in Streatley and Harlington; Sturt; Chatfield; London pedigrees and coats of arms.

The Numismatic Chronicle, 5th ser., vol. 6, part 4, contains the following articles:—Notes on some rare and unpublished 'Pegasi' of my collection, by O. Ravel; A note on some unpublished Roman bronze coins, by L. G. P. Messenger; Some rare or unpublished Roman and Byzantine coins, by G. C. Haines; Forgery of English copper money in the eighteenth century, by F. P. Barnard; Some notable coins of the Mughal Emperors of India, part ii, by R. B. Whitehead; The coinage of Edward III from 1351, by L. A. Lawrence; Two unpublished Jewish coins, by Rev. E. Rogers; An unpublished double-siliqua of Constantine junior, by E. A. Sydenham.

The Journal of the Society of Army Historical Research, April 1927, contains the following papers:—Thomas Andey's Treatise on the Art of War, contributed by Lt.-Col. W. St. P. Bunbury; The charter of the Company of Gunmakers, London; The Battle of Fontenoy; The Caithness Fencibles, and a recruiting card of 1799, by Major I. H. Mackay Scobie; The Battle of Warburg, a ballad, with an introductory note by Sir Charles H. Firth.

Ancient Egypt, March 1927, contains the following articles:—Egypt over the Border: the work of the British School of Archaeology, by Sir Flinders Petrie; A Graeco-Roman Apis, by L. B. Ellis; The Coptic Museum in Cairo, by G. P. Sobhy; Small objects from Naqadeh, by Sir Flinders Petrie; Notes on Parabolic cones, by R. W. Sloley; Marking-ink in Ancient Egypt, by C. Ainsworth Mitchell; The Sistrum of Isis, by L. B. Ellis.

The number for June 1927 contains the following papers:—The Hittite correspondence with Tut-Ankh-Amon's widow, by A. H. Sayce; The Gāla, by G. B. Huntingford; Notes on some genealogies of the Middle Kingdom, by Miss M. A. Murray.

The Journal of Egyptian Archaeology, vol. 13, parts 1 and 2, contains the following articles:—Édouard Nouille, by H. R. Hall; The ointment spoons in the Egyptian section of the British Museum, by Madeleine Frédéricq; Notes on the chronology of the Roman emperors from Valerian to Diocletian, by H. Mattingly; Some further Meletian documents, by W. E. Crum; The head of an old man (no. 37883) in the British Museum, by H. R. Hall; A marriage settlement of the twentieth dynasty: an unpublished document from Turin, by J. Černý and T. E.

Peet; Making a mummy, by W. R. Dawson; Notes on the nature and date of the 'papyri' of Nakht, B.M. 10471 and 10473, by S. R. K. Glanville; Three hippopotamus figures of the middle kingdom, by H. R. Hall; The family letters of Paniskos, by J. G. Winter; An administrative letter of protest, by A. H. Gardiner; Bibliography: Graeco-Roman Egypt, A. papyri (1924-6), by H. I. Bell, A. D. Nock, and H. J. M. Milne.

The Berks, Bucks, and Oxon Archaeological Journal, vol. 31, no. 1, contains the following papers:—Wayland's Smithy and the White Horse, by G. W. B. Huntingford; A prehistoric village site at Knighton Hill, Compton Beauchamp, by S. Piggott; Early mayors of Wallingford, by Rev. A. H. Cooke; The early history of Hardwick, by Rev. A. H. Cooke; Berkshire charters, by G. B. Grundy; Billingbear Park, by J. de C. Laffan.

Transactions of the Birmingham Archaeological Society, vol. 50, contains the following papers:—Excavations at Viroconium, 1923-4; The Turton family, by Rev. C. S. James; Excavation of an Anglo-Saxon cemetery at Bidford-on-Avon, by J. Humphreys; Ancient maps and atlases, by W. A. Cadbury; The painted panels at Strensham, by F. T. S. Houghton. Amongst the shorter notes are:—A Roman bronze bowl with the Christian monogram from Wall; Sheldon tapestries; Romano-British discoveries at Chase Woods, Kenilworth; 'Shadwell Dock' metal forgery; Saxon interments at Burton Dassett; Neolithic hammer-stone from Tanworth-in-Arden; Solingen rapier found at Yardley; Cooking pot found in Chesterton camp; Allcock's arbour, Alcester; Roman figure from Alcester; Alcester skulls; Charlecote brasses.

Transactions of the Bristol and Gloucestershire Archaeological Society, vol. 48, contains the following papers:—Proceedings of the meetings at Gloucester, Ashleworth, Tewkesbury, and Bristol; The Society, 1876-1926, by Roland Austin; Presidential Address on Local History, by A. Hamilton Thompson; The Roman pavement at Woodchester, by St. Clair Baddeley; Gloucestershire fonts, xvi, by A. C. Fryer; Sir John Hudleston, constable of Sudeley, by C. Roy Hudleston; Berkeley Castle, by St. Clair Baddeley; Letters and Verses written to John Smyth of Nibley on the completion of his Berkeley History, by Roland Austin; St. Peter's Hospital, Bristol, by J. J. Simpson; The archives of the Corporation of Bristol, by Miss N. D. Harding; The Pithay, Bristol, by J. E. Pritchard; Ashleworth ecclesiastical records; The recently discovered church at Grafton near Beckford and the churches of Great Washbourne and Stoke Orchard, by W. H. Knowles; Rectors of Cotes or Coates, by J. D. Thorpe; Old plans and views of Bristol, by J. E. Pritchard; The church of St. Nicholas of Myra, Ozleworth, i, by Rev. L. Wilkinson: ii, by T. Overbury: iii, by St. Clair Baddeley; Ashleworth church, by T. Overbury.

Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society, vol. 26, contains the following articles:—An inventory of the ancient monuments of Westmorland and Lancashire north-of-the-sands, by W. G. Collingwood; Dr. William Stratford, the benefactor, by the late Rev. Caesar Caine and W. G. Collingwood; Some South Cumberland place-names, by F. Warriner; On the identi-

fication of some ancient places in South Cumberland, by Rev. W. S. Sykes; Thomas Langton and his Tradition of Learning, by Rev. R. P. Brown; Triermain castle, by W. T. McIntire; The priory of Lanercost, by J. H. Martindale; A bridge of monastic date and other finds at Furness abbey, by P. V. Kelly; A calendar of Hawkshead documents from the Rydal Hall papers, by H. S. Cowper; Cumberland, by T. H. B. Graham; Brampton and Denton, by T. H. B. Graham; The manor of Kirkby Lonsdale, by Col. W. H. Chippindall; The trust of Sir Andrew de Harcla at Kirkby Stephen, by J. Mason; Ancient glass at Carlisle cathedral, by F. C. Eeles; The customs and tenant-right tenures of the northern counties, with particulars of those in the district of Furness, by W. Butler; The psalm-tune books of Nicholas Reay, curate of Cumwhitton, 1711-18, by Anne G. Gilchrist; George Romney, some notes on his ancestry, by Rev. T. N. Postlethwaite; Rockliff Cross and the Knowes of Arthuret, by W. G. Collingwood; Liddell Strength, by R. G. Collingwood; Scaleby castle, by J. F. Curwen; Further notes on Roman roads at Maryport and on the Netherhall Collection, by J. B. Bailey; Eskdale Notes, by Mary C. Fair; Excavations at Willowford, by R. C. Shaw.

Journal of the Derbyshire Archaeological Society, new series, vol. 2, part 1, contains the following articles:—A famous pew in Ashbourne church, by E. A. Sadler; Chelmorton and other deeds; The heraldry of Willoughby, by Rev. H. Lawrance; Derbyshire military effigies, iii, by Rev. H. Lawrance and T. E. Routh; Later descendants of Domesday holders of land in Derbyshire, by Rev. S. P. H. Statham. The number also contains the following short notes:—The Mellor bells; Part of a grave slab from Repton; Alabaster carvings; A Derbyshire priest, temp. Elizabeth; Onemanshouse; Mother Grundy's parlour; Difficulties in the mining industry, 1627; Willington church restoration.

Transactions of the Essex Archaeological Society, vol. 18, part 4, contains the following papers and notes:—Dedham tombstones, by Canon G. H. Rendall; The manor of Borley, 1308, by G. F. Beaumont; An early Roman burial group from Lexden, by M. R. Hull; The early history of the Society and of the Colchester and Essex Museum, by Rev. G. M. Benton; Wall-paintings at Quendon Hall, by Rev. G. M. Benton; Mustowe, by R. C. Fowler; The Society's gift (of two early silver spoons) to the Corporation of Colchester, by Rev. G. M. Benton; An early Coggeshall silversmith, by H. W. Lewer; Woolpit Farm, Springfield, by Rev. W. C. Hall; Horlock, by J. H. Round; Clements in Navestock, by J. H. Round; Seventeenth century Essex token, by W. Gilbert; The font at Rainham, by Miller Christy.

The Essex Review, July 1927, contains the following papers:—Eighteenth century travels, by Miss C. Fell Smith; The devastating Furniture beetle and how to destroy it, by Rev. J. W. Hayes; The Braintree arms, by A. Hills; A perambulation of Epping parish, 1762, by C. B. Swarder.

Papers of the Halifax Antiquarian Society, 1926, contains the following articles:—History of Shibden Hall, by J. Lister; Ancient highways of the parish of Halifax: v, The road surveys of John Warburton, vi, Elland and its highways, by W. B. Crump; The Mixenden Treasure, by T. W. Hansen; A tour through Lower Warley, by T. Sutcliffe;

Everhill Shaw in Heptonstall, by H. P. Kendall; The forest of Sowerbyshire, by H. P. Kendall; Notes and documents on Halifax churchwardens' accounts, by J. W. Houseman.

Transactions of the St. Albans and Hertfordshire Architectural and Archaeological Society, 1926, contains the following papers:—George Tankerfield, by Sir Edgar Wigram; St. Albans abbey: excavations on the site of the great cloister and adjacent buildings, 1924, by E. Woolley; Everyday life in medieval St. Albans, by G. R. Owst; Watford parish church, some further research, by Helen Rudd; Richard of Wallingford, abbot of St. Albans, 1326–1335, by Prof. H. H. Turner, Rev. W. A. Wigram, Prof. H. W. Garrod, R. P. Howgrave-Graham, and Dr. R. T. Gunther.

William Salt Society, Collections, 1925, contains the following articles:—Notes on Staffordshire families—Arblaster, Heverringham, Draycote—by W. Fowler Carter; Hearth Tax, Totmonslow Hundred, 1666; The Forest of Seccheshulle; The tomb of Richard Gorst in Lapley church.

Proceedings of the Somersetshire Archaeological Society, vol. 72, contains the following articles:—Somerset drainage, by R. Neville Grenville; Glastonbury abbey excavations: 10th annual report, by F. Bligh Bond; Glastonbury abbey excavations, 1926, by Theodore Fyfe; Monumental effigies in Somerset, xiii, by A. C. Fryer; Medieval embroidery in Somerset churches, by Dom E. Horne; The mound, Glastonbury, by A. Bulleid; Excavations at Ham Hill, part 3, by H. St. George Gray; Documents and deeds in the library at Taunton castle, by Lt.-Col. H. R. Phipps; Archaeological remains found at Middlezoy; Marshall's Elm; Tithe maps, chiefly West Somerset; Weights and measures, Taunton; Leaden coffin, Bedminster Down; Report on Chelm's Combe excavations, Cheddar. The volume also contains a full report of the Annual Meeting held at Glastonbury in 1926.

Proceedings of the Suffolk Institute of Archaeology, vol. 19, part 2, contains the following articles:—Excavations on the site of the Augustinian alien priory of Great Bricett, Suffolk, by F. H. Fairweather; The present state of the Elmham controversy, by F. S. Stevenson; The Suffolk coast: Orford Ness, by J. A. Steers; Sequestrations in Suffolk (ii), by R. F. Bullen; A check list of Suffolk buildings, by C. Morley; Muster rolls of Territorials in Tudor times, by E. C. Powell; Combretonium and Brettenham, by Rev. H. Copinger Hill; Pedigree of Edwards of Dennington and Framlingham.

Sussex Notes and Queries, vol. 1, no. 6, contains the following papers:—The Roman road between Angmering and Poling, by S. E. Winbolt; The passage of the Arun at North Stoke, by A. Hadrian Allcroft; Probable flint-mines near Tolmere pond, Findon, by E. Curwen and E. C. Curwen; Horsham churchwardens' account book, by R. Garraway Rice; Some notes on the Ninfield and Battle tanneries, by Admiral B. M. Chambers; The seat-holders of St. Michael's church, Lewes, in 1753 and 1803, with their dwelling-houses, by W. H. Godfrey; Cawley's almshouse, Chichester, by E. F. Salmon; Rameslie, by L. A. Vidler. Among the shorter notes are:—Figure of Harpocrates; A Romano-British site at Kingston Birce; Anglo-Saxon burial, Portslade;

Church Fields; Supervision of beer brewers, fifteenth century; Cannon made at Buxted; Sussex marriage entries in London registers; A felon's chattels; Recent finds (jar and basin) off the Sussex coast; A Willington petition to Parliament, 1648; The crown of Charlemagne; West Hoathly field-names.

Vol. 1, no. 7, contains the following articles:—Lewes priory and Southover church, by W. H. Godfrey; The name of Harpingden in Piddinghoe, by A. Anscombe; Horsham churchwardens' account book (continued), by R. Garraway Rice; A settler in Sussex (John Crawford), by Rev. G. P. Crawford; The seat-holders in St. Michael's church, Lewes, in 1753 and 1803, with their dwelling-houses (continued), by W. H. Godfrey; Some Sussex miracles, by L. F. Salzman; A Sussex connection of Dr. Isaac Watts, by Sir William Bull; Sussex entries in London parish registers (continued), by W. H. Challen; Flint mines on Church hill, Findon, by W. Law; Forgotten smelting sites in East Sussex, by D. Macleod; Ford, by T. J. Bryant; Copyholds near West Hoathly, by A. C. Crookshank; Littlehampton Hot Baths; Camomile fields and Mayfields, by D. Macleod; A Northiam parish survey, by N. Lloyd; West Hoathly field-names, by E. Straker.

Publications of the Thoresby Society, vol. 28, part 3, *Miscellanea*, contains the following articles:—Note on clerical strikes, by A. Hamilton Thompson; Fifteenth-century rentals of Barwick and Scholes, translated by the late W. T. Lancaster; The early Leeds Volunteers, by Emily Hargrave: The Leeds Gentlemen Independents, The Leeds Armed Association in 1782, The Leeds Volunteers, 1794–1802, The Leeds Gentlemen Volunteer Cavalry, 1797, The Leeds Volunteers 1803–8, Leeds Local Militia, 1808–14; Musical Leeds in the eighteenth century, by Emily Hargrave.

Transactions of the Thoroton Society, vol. 30, contains the following papers:—Extracts from the Act Books of the Archdeacons of Nottingham, by R. F. B. Hodgkinson; An itinerary of Nottingham, by J. Holland Walker; Extracts from the Records of the borough of Nottingham, by E. L. Guilford; Windmills, by Ralph Neville; St. Mary's church, Bottesford, by Rev. F. Walford; The first rector of Bingham, by Rev. Fanshawe Bingham; The life of John Blackner, by J. C. Warren.

The Wiltshire Archaeological Magazine, vol. 43, June 1927, contains the following articles:—Corsham, by Harold Brakspear; Supplementary report on the Early Iron Age village on Swallowcliffe Down, by R. C. C. Clay; The barrows on Marleycombe hill, Bowerchalke (1926), by R. C. C. Clay.

Transactions of the Woolhope Naturalists' Field Club, volume for 1924, 1925 and 1926, parts 1 and 2, contains the following articles:—Thomas Vaughan of Hergest, by Sir Joseph Bradney; William Langland's birth-place, by Canon A. T. Bannister; Alignment of Giant's Cave and Sacrificial stone, Malvern Hills, by A. Watkins; Observations on Earthworks with reference to the Welsh border, by I. T. Hughes; Report on excavations conducted on Midsummer Hill camp, by I. T. Hughes; King Arthur's cave on the Great Doward, by P. B. Symonds; Tours and Tourists in seventeenth-century Herefordshire, by H. Reade; The castle and lordship of Monmouth, by Sir Joseph Bradney; The church

of Edvin Ralph and some notes on Pardon monuments, by G. Marshall; Burford, by Sir Joseph Bradney; Ancient glass in Madley church, by G. Marshall; Arkston, by Sir Joseph Bradney; Report on a pottery site at Lingen, by A. Watkins; Excavations on the site of Caplar camp, Brockhampton, by G. H. Jack and A. G. K. Hayter; Bishop Peter de Aquablanca: his last will, his death and burial, by Canon A. T. Bannister; Castle Morton, co. Worcester, by Rev. C. V. Kennerley; A few folk- and other stories, by Rev. W. E. T. Morgan; Elizabeth Barrett and Hope End, by A. Watkins; Richard's Castle and the Normans in Herefordshire, by Canon A. T. Bannister; The church of Richard's Castle, by G. Marshall; Some account books of the first Lord Scudamore and of the Hereford Craft Gilds, by H. Reade; Field and Place names of Coddington, by Brig.-Gen. W. G. Hamilton; Excavations on the site of the Romano-British town of Magna, Kenchester, ii, by G. H. Jack and A. G. K. Hayter; Lugg Mills, Hereford; Long Stone, Dorstone; Underground passage legend, Llangorse; Bronze celt from Urishay; Ashford Carbonell; Excavation at Clifford Castle.

Transactions of the Worcestershire Archaeological Society, New Series, vol. 3, contains the following papers:—The church bells of Worcestershire, ii, by H. B. Walters; Churchwardens' accounts of the parish of South Littleton, by E. A. B. Barnard; The monumental brasses of Worcestershire, i, by F. J. Thacker; Saxon finds at Blockley, by E. A. B. Barnard; A painted panel and the Harewell triptych in Besford church, by A. T. Lawrence.

The Yorkshire Archaeological Journal, vol. 29, part 1, contains the following papers:—The medieval military effigies of Yorkshire, part 2, by the late W. M. I'Anson; Notes on the early Savile pedigree and the Butlers of Skelbrook and Kirk Sandal, by the late W. Paley Baildon; The Roman camps at Cawthorne, near Pickering, by I. A. Richmond; Bradley, a grange of Fountains, by C. T. Clay; Two Roman milestones found on Bowes Moor, by E. Wooler; The York goldsmiths: an unrecorded 'Maker's Mark', by H. G. Baker; Roman beads found near York, by W. E. Collinge; Two font-like objects at Sleights, by Rev. C. V. Collier; Crosses lately found at Hovingham and Hawaby, by W. G. Collingwood.

The Scottish Historical Review, July 1927, contains the following papers:—The Guardians of Scotland and a Parliament at Rutherglen in 1300, by G. O. Sayles; The Scots College at Douai, by Prof. J. H. Baxter; Scottish Canterbury Pilgrims, by S. C. Wilson; The origin of the House of Stewart, by J. T. T. Brown; The first Earl Marischal, by T. Innes.

Transactions of the Glasgow Archaeological Society, vol. 8, part 1, contains the following papers:—The architectural history of Dirleton castle, by W. Douglas Simpson; Polmadie: the ancient hospital and the modern house, by J. H. Parker; Hints as to how to compile a pedigree in Scotland, by W. G. Black.

Archaeologia Cambrensis, vol. 82, part 1, contains the following articles:—The Capel Garmon chambered long cairn, by W. J. Hemp; Early Iron Age Settlement on Merthyr Mawr Warren, Glamorgan, by Cyril Fox; A La Tène I brooch from Wales, by Cyril Fox; Llan-

rhychwyn church and its painted windows, by H. H. Hughes; Four Roman bronze vessels found at Glyn Dyfrdwy, by Willoughby Gardner; Further excavations at the Graig Lwyd neolithic stone axe factory, Penmaenmawr, by Rev. H. G. O. Kendall; Excavations on the Kerry hills, Montgomeryshire, by J. E. Daniel, E. E. Evans, and T. Lewis; Kenfig castle, by A. J. Richard; Bronze spear-head from Penmaenmawr, by H. H. Hughes; Casting of bells at Whitford for Caerwys church, Flintshire, by D. H. Williams; South Pembroke-shire early settlements, by A. G. O. Mathias; An address from Carnarvonshire to Richard Cromwell, by T. E. Morris; Wills of Welsh ecclesiastics holding appointments in England, by J. Challenor Smith; Early remains at Prestatyn; Some recent finds in Cardiganshire, by A. R. Sansbury.

Transactions of the Honourable Society of Cymmrodorion, 1925-6, contains the following articles:—Welsh music in the Tudor period, by Canon R. E. Roberts; Some notes on the history of the principality of Wales in the time of the Black Prince, 1343-76, by D. L. Evans; Some nineteenth-century letters, by E. M. Humphreys; Diogelu Enwau Lleoedd Cymru, by D. A. Evans; A short bibliography of place-names; The Religious census of 1676: an inquiry into its historical value mainly in reference to Wales, by T. Richards.

Bulletin of the Board of Celtic Studies, vol. 3, part 4, contains the following papers in the History and Archaeological sections:—William Morgan's quarrel with his parishioners at Llanrhaeadr ym Mochnant, by I. ab O. Edwards; Pre-Reformation inscribed chalice and paten, by M. Watkin and V. E. Nash-Williams; Perforated stone axe-hammers found in Wales, by S. J. Jones; Current work in Welsh archaeology, by Cyril Fox.

Transactions of the Anglesey Antiquarian Society, 1927, contains the following papers:—A prehistoric settlement in Anglesey, by T. Pape; The shell-mounds of Newborough Warren, by E. Neil Baynes; Three local monumental effigies—St. Iestyn, St. Pabo, Eva, wife of Anwel, by G. G. Holme; The early history of Beaumaris castle, by E. Neil Baynes; Fox-hunting in Anglesey, by Miss E. Massey; Holyhead celts; The Culidori stone.

Transactions of the Cardiff Naturalists' Society, vol. 57, includes a paper on Radyr by the late Charles Morgan.

Société Fersiaise, Bulletin, 1927, contains the following articles:—The family of Walsh or Wallis and the Seigneurie de St. Germain, with transcripts of documents at Warwick Castle relating to the family, by G. F. B. de Gruchy; The Report of the Commissioners for fiefs in 1645-6, by E. T. Nicolle; The early Protestant refugees in the Channel Islands, by the late H. M. Godfrey; The Payn family of St. Laurent; Sketches of sixteenth-century history from the 'Chroniques de Jersey', by G. T. Messervy.

The Indian Antiquary, May 1927, contains the following papers:—Land's Anecdota Syriaca on the Syrians of Malabar, by Rev. H. Hosten; Interpretation of the Upanisads, by Umesh Chandra Bhattacharjee; The meaning and etymology of Pûja, by Prof. J. Charpentier, Notes on piracy in Eastern waters, by the late S. Charles Hill.

June 1927, contains the following papers: Moslem epigraphy in the

Gwalior State, by Ramsingh Saksena; Vedic studies, by A. Venkatasubbiah; Notes on piracy in Eastern waters, by the late S. C. Hill.

July 1927, contains the following articles:—Thomas Cana and his copper-plate grant, by Rev. H. Hosten; Another enigmatic inscription from Travancore, by T. K. Joseph; The meaning and etymology of Pûja, by Prof. J. Charpentier; Vedic studies, by A. Venkatasubbiah; Dom Martin, the Arakanese prince, by Sir R. C. Temple; Naugaza tombs to the west of India, by Sir R. C. Temple; Notes on piracy in Eastern waters, by the late S. C. Hill.

August 1927, contains the following articles:—The date of Bhaskara Ravivarma, by K. G. Sankar; Moslem epigraphy in the Gwalior state, by Ramsingh Saksena; Thomas Cana and his copper-plate grant, by Rev. H. Hosten; The interpretation of the Upanisads, by Umesh Chandra Bhattacharjee; Notes on piracy in Eastern waters, by the late S. C. Hill.

Epigraphia Indica, vol. 18, part 7, contains the following articles:—Four Bhanja copper-plate grants, by Rai Bahadar Hiralal; The Mungir plate of Devapaladeva: Samvat 33, by L. D. Barnett; Tekkali plates of Danarnava's son Indravarman, by E. Hultzsch; Tekkali plates of Rajendravarman's son Devendravarman, by E. Hultzsch; Penukaparu grant of Jayasimha II, by E. Hultzsch; The Kodavali rock inscription of Chandasati: the second year of reign, by H. Krishna Sastri; Betma plates of Bhojadeva: Vikrama-Samvat 1076, by D. B. Diskalkar; Unpublished votive inscriptions in the Chaitya cave at Karle, by Madho Sarup Vats; Inscription on a Vishnu image from Deopani, by K. N. Dikshit; Polonnaruva inscription of Vijayabahu I, by S. Paranavitana.

American Journal of Archaeology, vol. 31, no. 2, contains the following articles:—A statue of the type called the Venus Genetrix in the Royal Ontario Museum, by Cornelia G. Harcum; Survivals of Sumerian types of architecture, by R. P. Dougherty; The 'Hellenistic Ruler' of the Terme Museum, by R. Carpenter; A primitive statue from Arkadia, by Dorothy Burr; Notes on 'Lost' Vases, iv, by S. B. Luce; A revision of *I. G. I²*, 216, by B. D. Meritt.

Proceedings of the American Antiquarian Society, vol. 36, part 2, contains the following papers:—Among the Mormons in the days of Brigham Young, by W. H. Munro; Revolutionary correspondence of Governor Nicholas Cooke, by M. B. Jones.

Bulletin of the Museum of Fine Arts, Boston, special number, May 1927, contains a full account of the tomb of Hetep-Heres, mother of Cheops, by Dr. Reisner.

June 1927, includes an article on a Sumerian diorite head of Gudea, ruler of Lagash, circa 2,500 B.C.

August 1927, contains the following papers:—Sculptures from Mathura, by A. Coomaraswamy; Two Attic painted plaques; A Palmyrene grave monument.

Bulletin of the Art Institute of Chicago, May, 1927, contains short articles on a late French Gothic statue of St. Syra, and on a French portrait statue of Nicole d'Apremont (died 1470).

Old-Time New England, vol. 18, no. 1, contains the following papers:—The origin of log houses in the United States, by H. C.

Mercer; The Wanton-Lyman-Hazard house, Newport, Rhode Island, by Maud L. Stevens; Trades and occupations in eighteenth-century New England; Contract to work a farm in Taunton on shares in 1840.

Bulletin de la Société nationale des Antiquaires de France, 1926, parts 3 and 4, contains the following articles:—Studies in the abbey church of Fécamp, by J. Vallery-Radot; The *decumanus maximus* of Berytus, by Comte de Mesnil du Buisson; Excavations at St. Cyr-sur-Mer, by J. Formigé; Claus Sluter and the quarry at Marquise, Pas-de-Calais, by F. de Mély; A confusion by eighteenth-century editors between Sulpicius Severus and Saint Sulpice, archbishop of Bourges, by J. Zeiller; The excavations at Orange in 1925, by J. Formigé; The ell-standard of Hagetmau, by P. Burguburu; The use of the term *pontifex* in the titles of the Christian Emperors of the fifth and sixth centuries, by Mgr. Batiffol; The inscription on the ring of Ulger, by Lt.-Col. Saint-Hillier; The sarcophagi of St. Ludre and St. Léocade at Déols, by J. Hubert; The lowering of the latch as a sign of homage in Auvergne and Bourbonnais, by P. J. Fournier; The discoveries at Glozel, by Seymour de Ricci; A statuette of Bacchus at Reims, by H. Deneux; A sixteenth-century alabaster at Guéret, by L. Lacrocq; The Book of Hours of Jean de Montauban and Anne de Keranrais, by M. Prinnet; Nicolas Belin painter of Modena, by L. Dimier; Bronze objects found at Mont-Auxois in 1926, by J. Toutain; The church of Merlévenez, by R. Grand; An inscription from Bovillae, by J. Carcopino; Boundary inscription from the Crête de Malissard, by M. Durry; A terra-cotta vase with the Labours of Hercules found at Reims, by L. Demaison; The arms of Ricci and Pescioni of Florence on Hispano-Mauresque plates in the Cluny Museum, by M. Prinnet; The date of the church of St. Aignan, by F. Deshoulières; Head of Christ from Lavandière in the Louvre, by P. Vitry; The polyptych of Floreffé, by J. Destrée; Objects found at Alesia in 1926, by J. Toutain; The use by Caesar of the term *pecuniae* in connection with marriage conditions in Gaul, by F. Martroye; Twelfth-century screens, by L. Demaison.

Bulletin Archéologique, 1925, contains the following articles:—A Gallo-Roman inscribed brooch, by G. Chenet; A Roman knife with a bone handle from Mandeure, by E. Michon; The excavations at Dougga, by L. Poinssot and R. Lantier; A fragment of a Punic stele from Carthage, by F. Icard; Lead seals from Carthage, by A. Merlin; Inscriptions from Carthage, by R. P. Delattre; The excavations at Bavay, by A. Blanchet; The discovery of a mosaic pavement at Clerval, by A. Blanchet; Excavations at Saint-Rémy, by R. Cagnat; Roman inscriptions from Saverne, by A. Grenier; The excavations at Vienne, by Commandant Espérandieu; The Roman theatre at Fréjus, by Commandant Espérandieu; The excavations at Orange, by J. Toutain; A fortified enclosure at Castleaou, by L. Carias; Excavations at Thurburbo Majus, by L. Poinssot and R. Lantier; Fragments of plaster from Gightis, by R. Dussaud; Discoveries in Tunis, by L. Poinssot and R. Lantier; Roman baths at Carthage, by C. Saumagne; Roman inscriptions from Kef, by M. Saint-Jean; Lead tablets from Carthage, by A. Audollent; Graffito from Carthage, by A. Boiard; The road from Metz to Verdun from Gallo-Roman to modern times, by Com-

mandant Lalance; The church of Sainte-Madeleine at Mirabeau, by Abbé M. Chaillan; The tomb of bishop Hugues de Châtillon at Saint-Bertrand-de-Comminges, by H. Drouot; The church of Saint-Illiers-la-Ville, by G. Poulain and Abbé Gauquelin; The Keep at Falaise, the churches at Foulbec and de Conteville, the pre-Romanesque archaeology of Pont-Audemer and the porches at Fatouville-Grestain and de Valletot, by L. Coutil; An early Bronze Age burial at Éguisheim, by L. Werner; Two Roman inscriptions from the Basses-Alpes, by M. Besnier; Inscriptions from Consular Africa and Numidia, by E. Albertini; Notes on the subsoil at Carthage, by C. Saumagne; The discovery of an early church at Dougga, by L. Poinssot and R. Lantier; Lead seals, etc., from Carthage, by F. Icard; A terra-cotta statuette from El-Djem, by L. Poinssot and R. Lantier; Inscriptions from El-Akrouabi, by M. Jaegly; Inscriptions from Mauretania, by E. Albertini; An inscribed mosaic from Lecourbe, by R. Cagnat; Punic stelae from Carthage, by E. Vassel; A statue of Venus from Bizerta, by A. Merlin; Roman inscriptions from Tunis, by L. Poinssot and R. Lantier; A Libyo-Roman inscription from Duperré and a new reading of a brick stamp, by E. Albertini; Discoveries of inscriptions, etc., in Tunis in 1924, by R. Cagnat; An inscription from Volubilis, by L. Chatelain; A monument in the church of Vieille-Lyre, by Abbé Guéry; A cave at Tazzouguert known as 'la grotte du Kef-Aziza', by Col. Belouin; Excavations at Dougga and Ain-Tebornok, by L. Poinssot and R. Lantier; A neo-Punic and two Libyan inscriptions, by R. Dussaud; The Salpêtrière cave of the Pont du Gard, by E. Gimon; Hallstatt cemetery at Jogasses, by Abbé Favret; Burials in the neighbourhood of Châlons-sur-Marne, by Abbé Favret; Mont-Afrique and its prehistoric origins, by E. Bertrand, R. Bouillerot and E. Socley; Excavations at *Ruessio*, by U. Rouchon; Gallo-Roman antiquities in the neighbourhood of Mâcon, by G. Jeanton; A cinerary urn from Vierville-sur-Mer, by M. Besnier; The 'Pont Flavien' at Saint-Chamas, by Abbé Chaillan; The church of Saint-Julien at Miramas-le-Vieux, by Abbé Chaillan; The Frankish cemetery of Ecos, by G. Poulain; A Merovingian sculpture from Pouillé, by J. Salvini; The influence of Hugues Sambin on architectural decoration, by E. Fyot; Half-timber construction in the Lieuvin and the rustic origin of town building, by Commandant R. Quenedey; Punic stelae found at Carthage, by F. Icard; Excavations in Tunis in 1923, by L. Poinssot and R. Lantier; Observations on the archaeological remains contained on the Djebel Bargou sheet of the 1/50000 map of Tunis, by Captain Jounard; A basilica at Mdaourouch, by E. Albertini; Excavations at Abbâssiya, near Kairouan, by G. Marçais; A dinar and quarter-dinar of the sovereign of the family of the Beni Zian, Abou el-Abbis Ahmed ben Abi Hammou Mousa II, by H. R. Mareschal.

Revue archéologique, vol. 25, January-March 1927, contains the following articles:—The rock churches of Cappadocia, by L. Bréhier; The use of bronze in the Classical East, by Mme A. Hertz; The use of worked flint in the La Tène III period, by Mme M. Massoul; The two sisters Epona discovered in Strasbourg cathedral in 1924, by R. Forrer; The representation of Dionysos Limnaïos, by G. van Hoorn;

Factus Lapilli, by S. Reinach; Gallic arms on Greek, Etruscan, and Roman monuments, by P. Couissin; The fief of Anguitard at Poitiers, by G. Thouvenin.

Revue anthropologique, 1927, nos. 1-3, Janvier-Mars. Most of this part is devoted to an account of the Jubilee of the School of Anthropology in Paris and to papers in connexion with the celebration. A portrait of Paul Broca (1824-80) is added. Dr. Absolon gives an illustrated account (p. 75) of a new and important Aurignac station in Moravia, known as Vistonice. Here a sculptured 'Venus' was found as well as three middens of mammoth bones; and the flint industry points to a late phase of the Aurignac period. Besides the female figurine, carvings of animal and birds' heads in bone were recovered; and the author is of opinion that the extinction of the mammoth was due to man, not to the climate.

Nos. 4-6, Avril-Juin 1927. Abbé Breuil describes and illustrates some new palaeolithic works of art from Périgord and eastern Spain, the most notable being a group of two human figures fighting a bear, from the cave of Péchialet (p. 104). M. Delage contributes notes on the morphology of Le Moustier flints from Belcayre in the Dordogne, with many illustrations: the specimens are in the museum at Les Eyzies. Hyoid (tongue) bones of animals, used as amulets, are illustrated from neolithic lake-dwellings of Switzerland: some are perforated at the narrow end, and several have cuts that seem to be due to the operation of extracting the tongue.

L'Anthropologie, tome xxxvii, nos. 1-2 (Paris: Masson et Cie., June 1927). The rock-shelter known as La Gernière is situated on the left bank of the Ain, five miles above Poncin (Ain), and has produced some interesting antiquities as well as a human skull of the Grimaldi type, the negroid characteristics being traced in the district from Aurignac times into the Neolithic. The shelter was occupied towards the close of La Madeleine, and the industry includes a large proportion of microliths, while graves and end-scrapers are very rare. Two fine engravings on stone were found, of a reindeer and bison, the latter almost identical with a polychrome figure at Font-de-Gaume. There are six photographic plates of flint implements and flakes, of natural size. M. Pallary's account of prehistoric discoveries in eastern Morocco is not illustrated, and the other articles are anatomical. Dr. Henri Martin's fourth volume on La Quina is reviewed (p. 158), and deals with the infant skeleton; and M. Vaufray notices Mr. Sandford's work on the Upper Thames deposits (p. 162). Other works are analysed on Sicily and Palestine (p. 167), the Oran province (p. 168), and South Africa (p. 169), and several papers on Belgium are grouped on pp. 171-2, Spanish prehistory being noticed on pp. 178-81, followed by Italy and Russia. A microlithic industry has been found as usual in sandy soil at Cape Blanc-Nez near Sangatte, near Calais, and prehistoric discoveries in the Far East are recorded on pp. 227-31, the almond-shaped hand-axe worked on one face being claimed as an international type in association with Le Campigny forms.

Revue Mabillon, April-June 1927, contains the following articles:—The origin of Oblates in the Benedictine Order, by Abbé Deroux; The commanderies of the Order of St. Anthony in Dauphiné, by Abbé

Maillet-Guy; An unpublished memoir on the abbey of Chancelade, by Canon Mayjonade; An unpublished notice on Mme de Peloux, foundress of the abbey of La Rochette, by Dom Charvin; Monastic documents preserved in series H of the departmental archives of Doubs, by A. Dornier.

L'Homme préhistorique, 1927, nos. 1-2 (January-February). A steatopygic figurine of serpentine, of uncertain date, from Savignano sul Panaro, Italy, is illustrated and occasion taken to list and classify other examples of the kind, some of which exhibit only adiposity. Varieties of the Gaulish 'terret' for horse's reins are figured and that explanation accepted. The first chapter of Dr. Shetelig's *Préhistoire de la Norvège* (Oslo, 1926) is here reproduced.

Aréthuse, July 1927, contains the following articles:—Historic coins of ancient Sicily (continued), by S. Mirone; Two movements in Byzantine art in the tenth century, by H. Pierce and R. Tyler; Thomas Picquot and the portraits of Marin Bourgeoys, by G. Huart.

Pro Alesia, nos. 41-2 (February-May 1925), contains the following papers:—Potters' marks and graffiti on Samian pottery at Geneva, by W. Deonna; Pre-Roman brooches found on the plateau of Alesia, by H. Corot.

Bulletin historique de la Société des Antiquaires de la Morinie, no. 273, contains the following papers:—Commercial relations between St. Omer and England in the twelfth century, by J. de Pas; Faïence manufactories at St. Omer in the eighteenth century, by C. de Pas; The construction of the Conciergerie on the Grand Marché of St. Omer, by J. de Pas.

Bulletin de la Société archéologique et historique de Nantes et de la Loire-Inférieure, vol. 66, contains the following articles:—The lost Prince—Louis XVII, by D. Barthélémy; Provence and Brittany, by E. Menaut; Further exploration in the tumulus of Dissignac, Saint-Nazaire, by M. Baudouin; Gold coins found in 1925 in a field at Roulais, by J. Chapron; On board the Nantes vessel 'Le Crillon' engaged in the slave trade between Africa and St. Domingo in the eighteenth century, by G. Halgan; Notes on the abbey of Buzay at the time of the Revolution, by L. Delattre; The tapestries of Le Bouffay (1773-93), by A. Perraud-Charmantier; Discovery of a statue of St. Adrian at Batz, by A. Audigé; The Grey Friars convent at Nantes from 1791 to 1925 (continued), by P. Jeulin; Relics of Anne of Brittany in the Musée Dobrée, by G. Durville; Inventory of the goods of Jean de Malestroît, Bishop of Nantes and Chancellor of Brittany (1444), and his tomb in the cathedral, by A. Bourdeaut.

Bulletin de la Société des Antiquaires de Normandie, vol. 36, contains the following papers:—Commemoration of the Society's centenary; The evolution of religious architecture in Normandy in the middle ages, by G. Huard; The history of the Society, by R. N. Sauvage; Norman archaeology from its beginnings to the tenth century, by R. Doranlo; Medieval Norman archaeology, by G. Huard; Norman numismatics: feudal coins, by A. Dieudonné; Norman bibliography, by R. N. Sauvage; Norman folklore, by J. Lechevrel; Genealogical studies in Normandy, by Abbé G. A. Simon; A plan of the abbey of the Holy Trinity at Caen dated 1774, by R. N. Sauvage; Two man-

dates of Charles de Bourgueville (1565), by V. Hunger; Statues of the Trinity at Campigny, Deauville, and Montiers-Hubert, by Canon Hersent and R. N. Sauvage; Letters patent of Louis XIV for the general hospital at Falaise (1708), by R. N. Sauvage; Presumed Saxon earthworks, by M. Lelièvre; Baptismal certificate of Jean Sarasin the poet, by R. N. Sauvage; The Roman road from Vieux to Lisieux, by Commandant Navel; Sixteenth-century wall-paintings at Saint-Martin de Bonfossé, by A. Rostand; The Abbé de la Rue and the *Anecdote normande*, by G. Huard; A bone-hole in the church of Hérouville Saint-Clair, by Abbé Lucas; A letter of 1698 written in the Norman patois, by P. Le Cacheux; An accusation of treason against the sailors of Bernières-sur-Mer in the thirteenth century, by F. Deschamps; The 'delle du Champ de Bataille' at Vieux and the 'Castel' and 'Castillons' at Bully, by Commandant Navel; The Urville tombs at Gouvix, by Abbé Alix; A fragment of Gallo-Roman mural painting from Blainville, by P. Ménégot; The ancient coastline at Bernières-sur-Mer, by R. Doranlo; Discovery of sarcophaguses at Saint-Martin de Fontenay, by R. Doranlo; A letter of Odolant Desnos (1783), by R. N. Sauvage; The history of Falaise, by G. Huard; The seminary of the Eudists at Caen, by G. Lesage; The plague at Caen in 1630, by M. Besnier; The edict of 1696 concerning the armorial bearings and the citizens of Caen, by Abbé Simon.

Bulletin de la Société des Antiquaires de Picardie, 1926, part 4, contains the following papers:—The Saint-Denis cemetery at Amiens, by G. Durand; The work of the sixteenth-century sculptors in Rouen cathedral, by Madame Lefrançois-Pillion.

Nassauische Annalen, vol. 46, part 2, contains the following articles:—The arrangement of the ecclesiastical authority for the Nassau-Orange states in the eighteenth century, by H. Grün; Researches in the early history of Nassau and of the family of the Counts of Nassau, by P. Wagner; The old names of the marches of Bad Ems and Kemmenau, by A. Bach.

Vol. 47 contains:—The wall of the 'burg' of Rittershausen, by F. Kutsch; The history of the parishes of Nassau down to the Union of 1817, by T. Hermann; The royal domain in Hessen-Nassau, the province of Upper Hesse, and the Wetzlar district in the time of the Carolingian and Saxon Emperors, by A. Schmitt; The date of the construction of the Castle of Nassau, by P. Wagner; Bibliography of Nassau history, &c., 1917-25.

Nassauische Heimatblätter, vol. 26, contains the following articles:—Albertine von Grün, by A. Bach; The place-name Eltvile, by F. Kutsch; The history of tobacco in Nassau, by L. Hörpel; The 'Limburg Article' of 1525 in the light of contemporary municipal unrest, by A. Heusche; The history of the monastery of Clarenthal, by H. Schrohe; The Westerwald in history, by L. Wirtz; A description of the castle of Eppstein in 1592, by C. H. Müller.

Volume 27 contains:—The family of Goedecke of Diez, by R. Heck; Wilhelm Christoph Thurn, by A. Henche; Roman stone monuments from Hedderheim in the Wiesbaden Museum, by E. Ritterling; The archives of the Evangelical state church in Nassau, by H. Schlosser; Karl Friedrich, Freiherr von Kruse, as a political author, by A. Henschel;

The history of the castle of Hohenstein, by Paul Wagner; A Westphalian relief of the bearing of the Cross in the Nassau State Museum, by W. F. Volbach; Church discipline for 200 years, by O. Stückerath; The origin of the weekly market at Eltville, by P. Wagner; Ernst von Geisenheim, by E. Schaus; Silkworm culture at Bacharach and Kaub in the Palatinate in the second half of the eighteenth century, by C. Kappus.

Oudheidkundige Mededeelingen uit 's Rijksmuseum van Oudheden te Leiden, vol. 8, part 1, contains the following articles:—Illustrations of the Brittenburg, by J. H. Holwerda; The monument of Sebekhotep IV, by W. D. Van Wijngaarden; Short note on tumuli; The Rhine fortification of Charles the Great, by J. H. Holwerda; The excavation of a hill fort at Ritthem in Walcheren, by A. E. Remouchamps.

Notizie degli Scavi, 6th series, ii (1926), fasc. 10-12. Various discoveries in Padua are described by E. Ghislanzoni. In the Piazza del Municipio remains of the small ancient church of S. Martino with characteristic carving of eighth-tenth century, a mosaic (first century A.D.), and other remains of the Imperial Age, a Roman female head (early Imperial), and the epitaph of a local *praefectus ture dicundo*. Piazza Cavour: remains of a Roman building with columns. Under a pavement near to this was a grave with pottery of the third Atestine period. A piece of paved road with its curbs. Among various objects discovered the most interesting were a small bronze votive inscription beginning with N followed by a number, an unexplained peculiarity found in other Paduan inscriptions. Epitaph (first century A.D.) of the family of Carrius Optatus with his friends and the *sodales carpentarii* (not found before). Epitaphs in other parts of the city. Fumare (Valpolicella), an eneolithic grave with stone axes, by the same. Canfanaro, votive inscription of Maxuma Umbria. Populonia. A. Minto describes the results of the excavations of 1925-6. In the region of S. Cerbone, various objects found in tombs, and the remains of a tomb in the form of an aedicula (Tav. X), inside which were found various objects including an amber pendant in the form of a human head, four Attic red-figured Kylixes (Tav. XI, XII), and many ceramic fragments. In another district were found remains of a fortified wall, perhaps that of Populonia Marittima, the port, as distinguished from the city on the hill. Ancona, a mosaic floor (geometrical patterns); Arcevia, gold ring with two human hands grasping a gem, now in the Museum at Ancona which already possesses a similar ring in bronze; Osimo, geometrical floor-mosaic (now in Ancona Museum); Pioraco, headless statue (Greek marble) of an ephebus, probably a first-century A.D. copy of a Greek bronze of the early fifth century B.C.; Potenza Picena, find of 448 Republican silver coins (217-64 B.C.), by G. Moretti. Teramo, exploration of the site of the so-called amphitheatre of Interamnium, and discovery of remains of a stage and proscenium, showing it to have been a Roman theatre, by F. Savini. Rome, a bronze tablet with dedication of a *lucerna* by a mother at her son's tomb, by E. Stefani; and an early medieval epitaph of *Rottelda peccatrix*, by R. Paribeni. Rocca di Papa, fragments of figures painted on plaster from a Roman villa, by E. Gatti; Lanuvio, a dedication by Ti. Claud. Justus Lollianus, remains of a vaulted quadriporticus,

fragment of a marble horse, and other antiquities, by A. Galieti. E. Gatti describes discoveries at Tivoli near the source of the Aquae Albulae, including a small round temple, a marble river god, sleeping nymph, and other sculptures, dedication by C. Ostorius Italus of an image of Diana to Albula Isis. Near the Accademia of Hadrian's Villa, parts of four fluted columns of giallo antico. From another site, the epitaph of a *diaetarius* of the imperial household. Near the town has been found a section of a subterranean aqueduct connected with the Anio Vetus. Palestrina, a small marble herm with portraits of Sophocles and Euripides (now in Mus. Naz., Rome), by R. Paribeni. At Velletri, O. Nardini records a mass of votive objects from a well at the entrance to the Cathedral, confirming the theory that it is on the site of a temple of Mars; a pavement probably connected with Octavian's villa; epitaph of Titedia Apicula 'invisa nulli mater'; find of bronze coins (fourth century A.D.); two stone cinerary urns with lead fastenings intact. At S. Maria Capua Vetere, G. De Bottis describes remains of public baths; three underground rooms, originally lighted from the barrel vault, with traces of original decorations, forming a retreat in hot weather for some Roman country house; various inscriptions, including the epitaph of a Langobardic magistrate, and the record of some construction by a *consularis Campaniae* (fourth century A.D.). A. Maiuri describes remains of the aqueduct which brought water from the source of the Volturnus to Venafrum, with two more examples of Augustus's boundary stones. Near Pompeii a vaulted cistern, by M. Della Corte; Nocera Superiore, buildings of Roman Nuceria buried in the eruption of A.D. 79, by G. Spano; Ielsi (Campobasso), various antiquities including contents of a Samnite grave (end of second century B.C.) and two Roman epitaphs, by M. Della Corte; Pignola di Basilicata, traces of a pagus, perhaps belonging to Potentia, by V. De Cicco; Strongoli, a late marble female head in the Museum at Catanzaro, with treatment similar to that of heads recently discovered in Cyrene, by S. Ferri. At Cagliari in Sardinia, A. Taramelli gives the results of the exploration of the crypt or rock-cave (known as the prison of St. Ephesius) under the Cathedral. No definite indications of its origin and use were found (coins of Domitian and early second-century emperors), but it may have been a secret place of meeting for the early Christians of Caralis.

Bergens Museums Aarbok, 1926, 3 hefte (Bergen, 1927). The accessions to Bergen Museum include the remarkable bronze vessel of Irish work, the bronze panel with amber of similar origin, and the pair of open-work tortoise brooches found together in a Viking grave at Vinjum, Vangen (see *Antiq. Journ.* vi, 475). A paper by Johs. Bøe catalogues the gold found in Norwegian graves of the Early Iron Age, with five photographic plates; and Anathon Bjørn discusses the earliest Iron Age of Norway, with reference to Pytheas' voyage to Thule about 325 B.C.

Academia das Sciencias de Lisboa: Boletim da Classe de Letras, vol. 15, includes the following articles:—The name Lusitania, by P. de Azevedo; The Bhagavad-Gitā: a summary Portuguese translation by a seventeenth-century anonymous author, by F. M. E. Pereira; An English translation of the 20th Sonnet of Sá de Miranda, by Dr.

Carnett; The new shield of arms of Lisbon, by P. de Azevedo; Fernandes Costa, by G. Ramos; Rural life of Alentejo, by Dr. L. da Cunha Gonçalves; The discovery of the North American continent by the Danes and Portuguese in 1472-3, by S. Larsen; The evolution of the Portuguese language, by Dr. J. J. Nunes; Dialect of the province of Beira Alta, by J. da Fonseca Lebre; The Lisbon Academy of Sciences and the philosophical movement of the eighteenth century, by A. Ferrão; Charter of Alfonso V of Portugal to Christian of Denmark, by E. de Vasconcellos; A French poetess in Portugal: Pauline de Flaugergnes, by H. de Campos Ferreira Lima; The Marquess de Pombal and the 'Meninos de Palhavã', by A. Ferrão; Personal names in Place names, by J. Leite de Vasconcelos; Lieutenant-Colonel João de Almeida Gorgel (1730-1812), by A. Ferrão; Dom João Carlos de Bragança, second duke of Lafões (1719-1806), by J. de Vasconcelos; José Corrêa da Serra, by J. de Matos; The bust of the duke of Lafões, by H. de Campos Ferreira Lima; Materials for the history of the Academy of Sciences, by C. Aires.

Institut d'Estudis Catalans: Memoires, vol. 1, parts 1 and 2, contains the following papers:—The silver châsse of Saint Ermengol, bishop of Urgell, by Père Pujol i Tubau; Paquimeres and Muntaner, by A. Rubió i Luch.

Fornvännen: Meddelanden från K. Vitterhets Historie och Antikvitets Akademien, 1927, häfte 2. A bronze hoard from Storråta near Uppsala is interesting for the association of a flint saw with a socketed celt and ornamented spear-heads, deposited at the beginning of the second period of the Bronze Age. Scrap-metal in a hoard (fig. 32) found at Ystad, Scania, included portions of swords and can be assigned to the fifth period of Montelius. A pommel shows that the Möringen type is represented, and a fragment of a winged celt also points to importation. Tut-ankh-amen's iron dagger is reproduced (p. 126) in connexion with the inquiry into the homeland of Iron.

Bibliography

Books only are included. Those marked * are in the Library of the Society of Antiquaries.

American Archaeology.

- *Archaeological observations north of the Rio Colorado. By Neil M. Judd. 9 × 5½. Pp. ix + 171. Smithsonian Institution, Bureau of American Ethnology, Bulletin 82. Washington, 1926.

Anglo-Saxon Archaeology.

- *Northumbrian Crosses of the Pre-Norman Age. By W. G. Collingwood. 12½ × 10. Pp. vi + 196. London: Faber and Gwyer, 1927. 30s.

Archaeology: General.

- *Dunstable Library and Museum. Second Annual Report (1926-1927) of the Committee [of the Museum]. 10½ × 8½. Pp. 35. Dunstable, 1927. 1s.

- *City of Stoke-upon-Trent. Report of the Corporation Museums for the year 1926-7. 8½ × 5½. Pp. 14 and 8 plates. Hanley. 6d.

- *The comb in human history: a study of origins. By Rendel Harris. Woodbrooke Essays, no. 4. $9\frac{1}{2} \times 6$. Pp. 9. Cambridge: Heffer, 1927. 1s.
- *Les Trésors du Cabinet des Antiques. Le Cabinet du Roi ou le salon Louis XV de la Bibliothèque Nationale. Par Jean Babelon. $13 \times 9\frac{3}{4}$. Pp. 44, with 24 plates. Paris and Brussels: Vanoest, 1927.

Architecture.

- *The Fourth Volume of the Wren Society, 1927: Hampton Court Palace 1689-1702: Original Wren drawings from the Sir John Soane's Museum and All Souls Collections. $12\frac{1}{2} \times 9\frac{3}{4}$. Pp. 80, with 47 plates. Oxford: printed for the Wren Society at the University Press, 1927.

Arms and Armour.

- *Catálogo de las Armas del Instituto de Valencia de Don Juan. Por J. M. Florit y Arizcum, completado por F. J. Sánchez Cantón. $11\frac{3}{4} \times 8\frac{3}{4}$. Pp. xi + 147. Madrid, 1927.

Art.

- *Victoria and Albert Museum. A picture book of the Raphael Cartoons. $7\frac{1}{2} \times 5$. Pp. 24. London: Stationery Office, 1927. 6d.
- *Notice sur le Fichier Laborde; don fait à des bibliothèques publiques parisiennes de fiches intéressant les artistes des xvi^e, xvii^e, et xviii^e siècles. Par Comte A. De Laborde. $10\frac{1}{4} \times 8$. Pp. 55. Paris: Schemit, 1927.

Assyriology.

- *Publications of the Joint Expedition of the British Museum and of the Museum of the University of Pennsylvania to Mesopotamia. Ur Excavations: Volume I, Al-'Ubaid. A report on the work carried out at Al-'Ubaid for the British Museum in 1919 and for the Joint Expedition in 1922-3. By H. R. Hall and C. Leonard Woolley. With chapters by C. J. Gadd and Prof. Sir Arthur Keith. $12\frac{3}{4} \times 9\frac{1}{4}$. Pp. xii + 244, with 68 plates. Published for the Trustees of the two Museums by the Oxford University Press, 1927. £3. 3s.

Bookbindings.

- Victoria and Albert Museum. A picture book of Bookbindings. Parts i and ii. $7\frac{1}{4} \times 5$. Pp. 24. London: Stationery Office, 1927. 6d. each.

Castles.

- *The Mediaeval Castle in Scotland (Rhind Lectures in Archaeology, 1925-6). By W. Mackay Mackenzie. $8\frac{3}{4} \times 5\frac{1}{2}$. Pp. xii + 249. London: Methuen, 1927. 15s.

Ceramics.

- *Studies in early pottery of the Near East. ii. Asia, Europe, and the Aegean and their earliest interrelations. By Dr. H. Frankfort. $10\frac{3}{4} \times 7\frac{1}{2}$. Pp. xi + 203. London: Royal Anthropological Institute, 1927. 12s. 6d.

Egyptology.

- *Objects of daily use, with over 1,800 figures from University College, London. By Flinders Petrie, Kt., F.R.S., F.B.A. $12 \times 9\frac{1}{2}$. Pp. viii + 75, with 62 plates. London: British School of Archaeology, 1927.
- *The credibility of Herodotus' account of Egypt in the light of the Egyptian monuments. By Wilhelm Spiegelberg, with a few additional notes by the translator, Aylward M. Blackman. $8\frac{1}{2} \times 5\frac{1}{2}$. Pp. iv + 40. Oxford: Blackwell, 1927. 2s. 6d.
- *More about Egypt and its colonies. By Rendel Harris. Woodbrooke Essays, no. 6. $9\frac{1}{2} \times 6\frac{1}{4}$. Pp. 12. Cambridge: Heffer, 1927. 1s.
- *Traces of Ancient Egypt in the Mediterranean. By Rendel Harris. Woodbrooke Essays, no. 1. $9\frac{1}{2} \times 6$. Pp. 23. Cambridge: Heffer, 1927. 2s.

Enamels.

- *Victoria and Albert Museum. A picture book of Medieval Enamels. $7\frac{1}{2} \times 5$. Pp. 24. London: Stationery Office, 1927. 6d.

Engraving.

- *The Trade Cards of Engravers. By Ambrose Heal. $8\frac{1}{4} \times 5$. Pp. 34. Reprint, *Print Collector's Quarterly*, July, 1927.

Heraldry.

- *A collection of Miscellaneous Grants, Crests, Augmentations, and Exemptions of Arms in the MSS. preserved in the British Museum, Ashmolean Library, Queen's College, Oxford, and elsewhere. Edited by Willoughby A. Little-dale. Parts I and II. $10\frac{1}{2} \times 7$. Pp. xii + 124; xii + 125-226. Publications of the Harleian Society, vols. 76 and 77. London, 1925, 1926.

History and Topography.

- *The Cambridge Ancient History. Edited by J. B. Bury, S. A. Cook, F. E. Adcock. Vol. vi, Macedon, 401-301 B.C. $9\frac{1}{2} \times 6\frac{1}{2}$. Pp. xxiii + 648. Cambridge: at the University Press, 1927. 30s.
- *The Cambridge Ancient History. Edited by J. B. Bury, S. A. Cook, F. E. Adcock. Volume of Plates I. Prepared by C. T. Seltman. $9\frac{1}{2} \times 6\frac{1}{2}$. Pp. xxviii + 395. Cambridge: at the University Press, 1927. £1 5s.
- *The Scottish Correspondence of Mary of Lorraine, including some three hundred letters from 20th February 1542-3 to 25th May 1560. Edited by Annie I. Cameron. $8\frac{3}{4} \times 5\frac{1}{2}$. Pp. xxvi + 476. Publications of the Scottish History Society, 3rd ser., vol. x. Edinburgh, 1927.
- *Disappearing London. By E. Beresford Chancellor. $12 \times 9\frac{1}{2}$. Pp. ii + 9, with 12 plates. London: The Studio, 1927.
- *Records of the Cust Family. Series iii. Sir John Cust, third baronet, P.C., M.P. for Grantham 1742-1770, Speaker of the House of Commons 1761-1770. Memoir and Correspondence. By Lionel Cust. $11\frac{1}{2} \times 8\frac{1}{2}$. Pp. viii + 346. London: Mitchell, Hughes, and Clarke, 1927. [Privately printed.]
- *The History of the Franks. By Gregory of Tours. Translated, with an introduction, by O. M. Dalton. In two volumes. $8\frac{3}{4} \times 5\frac{1}{2}$. Pp. xii + 447; viii + 660. Oxford: at the Clarendon Press, 1927. 40s.
- *Chartulary of Winchester Cathedral. Edited in English by A. W. Goodman. $8\frac{1}{2} \times 5\frac{1}{2}$. Pp. lxviii + 284. Winchester: Warren, 1927. 25s.
- *Menevia Sacra, by Edward Yardley, S.T.B., Archdeacon of Cardigan, 1739-1770. Edited by Frank Green. $8\frac{3}{4} \times 5\frac{1}{2}$. Pp. viii + 430. London: Cambrian Archaeological Association, 1927.
- *Byways of Shropshire History. By Rev. G. S. Hewins. $8 \times 5\frac{1}{2}$. Pp. 12. Ludlow: Advertiser Office, 1927.
- *Historical and other notes on the ancient manor of Charlbury and its nine hamlets. By John Kibble. $8\frac{1}{2} \times 5\frac{1}{2}$. Pp. 100. Privately printed, 1927.
- *Additional Notes to *A Survey of London*, by John Stow. By Charles Lethbridge Kingsford. $8\frac{1}{2} \times 5\frac{1}{2}$. Pp. 30. Oxford: at the Clarendon Press, 1927. 2s. 6d.
- *Temple Newsam. By Sydney D. Kitson and Edmund D. Pawson. $9\frac{1}{2} \times 6$. Pp. 48. Leeds, 1927.
- *The History of the Washington family. By H. Isham Longden. $7\frac{1}{2} \times 5$. Pp. vi + 56. Northampton: Mark & Co., 1927. 3s.
- *Yorkshire Star Chamber Proceedings, vol. iv. Edited by John Lister. $8\frac{3}{4} \times 5\frac{1}{2}$. Pp. xiv + 163. Yorkshire Archaeological Society, vol. 70. 1927.
- *A History of the Jewish People. By Max L. Margolis and Alexander Marx. $8\frac{3}{4} \times 6$. Pp. xxii + 825. Philadelphia: The Jewish Publication Society of America, 1927. \$4.
- *The Plea Rolls of Anglesey (1509-1516). Edited, with introduction, by Hugh Owen, and foreword by Sir R. Williams-Bulkeley. $8\frac{1}{2} \times 5\frac{1}{2}$. Pp. v + 66. Supplement to Transactions of the Anglesey Antiquarian Society, July, 1927. Llangefni, 1927.
- *The Keith Papers selected from the Letters and Papers of Admiral Viscount Keith and edited by W. G. Perrin. $9\frac{1}{2} \times 6\frac{1}{2}$. Pp. xii + 452. Publications of the Navy Records Society, vol. lxii, 1927.

- *The Table Talk of John Selden. Newly edited for the Selden Society by the Right Hon. Sir Frederick Pollock, Bt., from a MS. hitherto uncollated belonging to the Hon. Society of Lincoln's Inn, together with an account of Selden and his work by the late Sir Edward Fry, reprinted by permission from the Dictionary of National Biography. $8\frac{1}{2} \times 6\frac{1}{2}$. Pp. xxv + 191. London: Quaritch, 1927.
- *Letters of Admiral of the Fleet the Earl of St. Vincent whilst First Lord of the Admiralty, 1801-1804. Vol. ii. Edited by David Bonner Smith. $9\frac{1}{2} \times 6\frac{1}{4}$. Pp. vii + 604. Publications of the Navy Records Society, vol. lxi. 1927.
- *The Earliest Lincolnshire Assize Rolls, A.D. 1202-1209. Edited by Doris M. Stenton. $10 \times 6\frac{1}{4}$. Pp. lxxxii + 357. Publications of the Lincoln Record Society, vol. 22. 1926.
- *A biographical register of Peterhouse men and some of their neighbours, from the earliest days (1284) to the commencement (1616) of the first admission book of the College. By Thomas Alfred Walker. Part i, 1284-1574. $10\frac{1}{4} \times 6\frac{1}{4}$. Pp. x + 324. Cambridge: at the University Press, 1927. 42s.
- *An index of persons named in Early Chancery Proceedings, Richard II (1385) to Edward IV (1467), preserved in the Public Record Office, London. Edited by Claude A. Walmisley. $10\frac{1}{4} \times 7$. Pp. vii + 117. Publications of the Harleian Society, vol. 78. London, 1927.
- *The Greenwell Deeds preserved in the Public Library, Newcastle-upon-Tyne. Calendared by Joseph Walton, sub-librarian, with an introduction by A. Hamilton Thompson. *Archæologia Aeliana*, 4th ser., vol. iii, extra volume for 1927. $8\frac{1}{2} \times 5\frac{1}{2}$. Pp. xxiv + 237. Newcastle, 1927.
- *More Culloden Papers. Edited by Duncan Warrand. Vol. iii, 1725 to 1745. $10\frac{1}{4} \times 7\frac{1}{2}$. Pp. xi + 256. Inverness: Carruthers, 1927.
- *Clitheroe in the seventeenth century. Illustrated by copious extracts from the Clitheroe Borough Records and other unpublished local documents. By William Self Weeks, F.S.A. $9\frac{1}{2} \times 7\frac{1}{2}$. Pp. iv + 328. Clitheroe, 1927.
- *More Pepysiana, being notes on the Diary of Samuel Pepys and on the genealogy of the family with corrected pedigrees. By Walter H. Whitear. $8\frac{1}{2} \times 5\frac{1}{2}$. Pp. viii + 177. London: Simpkin, Marshall, 1927. 12s. 6d.
- *The Liber Pauperum of Vacarius. Edited for the Selden Society by F. de Zulueta. $10 \times 7\frac{1}{2}$. Pp. clxv + 326. Selden Society Publications, vol. 43. London: Quaritch, 1927.
- *Roll of the Baronets as authorized by Royal Warrant. Issued with official sanction by the Standing Council of the Baronetage, together with its objects, rules, and regulations. $8\frac{1}{4} \times 6\frac{1}{2}$. Pp. 40 + 64. London, 1927.
- *Acts of the Privy Council of England, 1616-1617. 10×7 . Pp. iv + 478. London: Stationery Office, Adastral House, Kingsway, 1927. £1 5s.
- *The Parish Registers of Abinger, Wotton, and Oakwood Chapel, co. Surrey. $10 \times 6\frac{1}{4}$. Pp. xii + 304. Surrey Record Society, no. xxv. London, 1927.
- *London and the Vikings. London Museum Catalogues, no. 1. $8\frac{1}{2} \times 5\frac{1}{2}$. Pp. 55. Lancaster House, St. James's, 1927. 1s.
- *The Westgate, Winchester, and the City Weights and Measures. $7\frac{1}{2} \times 4\frac{3}{4}$. Pp. 24. Winchester, 1927. 3d.
- *Dicionário bibliográfico da Guerra Peninsular contendo a indicação de obras impressas e manuscritas, em Português, Espanhol, Catalão, Francês, Inglês, Italiano, Alemão, Latim, etc. Por Christovam Ayres de Magalhães Sepúlveda. Volume ii, F-O. $9 \times 5\frac{1}{4}$. Pp. 430. Academia das Ciências de Lisboa. Coimbra, 1926.
- *Correspondência diplomática de Francisco de Sousa Coutinho durante a sua embaixada em Holanda. Publicada por Edgar Prestage e Pedro de Azevedo. Volume ii, 1647-1648 (Maio). 11×8 . Pp. xxvi + 409. Academia das Ciências de Lisboa. Coimbra, 1926.

Icons.

- *The Russian Icon. By Nikodím Pávlovich Kondakóv. Translated by Ellis H. Minns. $11\frac{1}{2} \times 8\frac{1}{2}$. Pp. xxvi + 226. Oxford: at the Clarendon Press, 1927. £5 5s.

Indian Archaeology.

- *University of Mysore. Annual Report of the Mysore Archaeological Department for the year 1926, with the Government review thereon. $13 \times 8\frac{1}{2}$. Pp. 109 + 40 + 12. Bangalore, 1927.
- *The Diary of Ananda Ranga Pillai; translated from the Tamil by order of the Government of Madras. Edited by H. Dodwell. $8\frac{1}{2} \times 5\frac{1}{2}$. Pp. xxi + 488. Madras, 1927. 3 rupees.
- *Annual Report on South Indian Epigraphy for the year ending 31st March 1926. $13\frac{1}{2} \times 8\frac{1}{2}$. Pp. ii + 117. Madras, 1927. Rs. 2.12.
- *Annual Report on the Archaeological Survey of Ceylon for 1925-6. $12\frac{3}{4} \times 8\frac{1}{2}$. Pp. 10. Colombo, 1927. 40 cents.

Japanese Archaeology.

- *Victoria and Albert Museum. A picture book of Japanese Sword Guards. $7\frac{1}{4} \times 5$. Pp. 24. London: Stationery Office, 1927. 6d.

Literature.

- *Coleridge's 'Hymn before Sunrise in the Vale of Chamouni'. By Rendel Harris. Woodbrooke Essays, no. 3. $9\frac{1}{2} \times 6$. Pp. 18. Cambridge: Heffer, 1927. 2s.

Manuscripts.

- *Les Enluminures romanes des manuscrits de la Bibliothèque Nationale. Par Ph. Lauer. $12\frac{3}{4} \times 9\frac{1}{2}$. Pp. 174, with portfolio of 85 plates. Paris: La Gazette des Beaux-Arts, 1927.

Monastic.

- *The Priory of St. Pancras, Lewes. A short historical guide to the ruins at Southover. By Walter H. Godfrey. $8\frac{1}{2} \times 5\frac{1}{2}$. Pp. 24. Lewes, 1927. 9d.

Prehistoric Archaeology.

- *Apes and Men. By Harold Peake and Herbert John Fleure. $8 \times 5\frac{1}{4}$. Pp. vi + 138. Oxford: at the Clarendon Press, 1927. 5s.
- *Hunters and Artists. By Harold Peake and Herbert John Fleure. $8 \times 5\frac{1}{4}$. Pp. vi + 154. Oxford: at the Clarendon Press, 1927. 5s.
- *The Hill Figures of England. By Sir Flinders Petrie. 12×10 . Pp. 16, with 9 plates. London: Royal Anthropological Institute, 1926. 5s.
- *More about Celtic migrations. By Rendel Harris. Woodbrooke Essays, no. 9. $9\frac{1}{2} \times 6\frac{1}{4}$. Pp. 10. Cambridge: Heffer, 1927. 1s.
- *Sonderabdruck aus dem Führer durch die Sammlungen des Geschichtsvereins im Landesmuseum zu Klagenfurt. Von Dr. Adolf Mahr. $7\frac{1}{2} \times 4\frac{1}{4}$. Pp. 20. Klagenfurt [1927].
- *De Hunebedden in Nederland (met Atlas). Door Dr. A. E. Van Giffen. Two volumes. 10×7 . Pp. xi + 244; xv + 580. Atlas: $12\frac{1}{2} \times 19\frac{1}{2}$. 154 plates. Utrecht: Oosthoek, 1925, 1927. 45 florins.
- *Pravěk Země České. Díl 1. Věk Kamenný. Napsal Dr. Albín Stocký. $11\frac{3}{4} \times 8\frac{1}{4}$. Pp. xi + 199, with 128 plates. Prague, 1926.

Place-Names.

- *The Place-Names of Worcestershire. By A. Mawer and F. M. Stenton, in collaboration with F. T. S. Houghton. English Place-Name Society, vol. iv. $8\frac{1}{2} \times 5\frac{1}{4}$. Pp. xlv + 420. Cambridge: at the University Press, 1927. £1.

Plasterwork.

- *English Decorative Plasterwork of the Renaissance. By M. Jourdain. $11 \times 8\frac{3}{4}$. Pp. xiii + 258. London: Batsford [1927]. 30s.

Plate.

- *Le Calice d'Antioche: les théories du Dr. Eisen et la date probable du calice. Par Guillaume de Jerphanion. $9\frac{1}{2} \times 6\frac{1}{2}$. Pp. 175. *Orientalia Christiana*, vol. 7, no. 27. Rome, 1926.

Religion.

- *The Tibetan Book of the Dead or the after-death experiences of the *Bardo* Plane, according to Lāma Kazi Dawa-Samdup's English rendering. By W. Y. Evans-Wentz. $8\frac{3}{4} \times 5\frac{3}{4}$. Pp. xlv + 248. Oxford: University Press; London: Milford, 1927. 16s.
- *Jesus and Osiris. By Rendel Harris. Woodbrooke Essays, no. 5. $9\frac{1}{2} \times 6$. Pp. 30. Cambridge: Heffer, 1927. 2s.
- *What was the Afikoman? By Rendel Harris. Woodbrooke Essays, no. 2. $9\frac{1}{2} \times 6$. Pp. 13. Cambridge: Heffer, 1927. 2s.
- *St. Paul and Greek Literature. By Rendel Harris. Woodbrooke Essays, no. 7. $9\frac{1}{2} \times 6\frac{1}{4}$. Pp. 25. Cambridge: Heffer, 1927. 2s.
- *Les Origines de l'Hercule Romain. Par Jean Bayet. $10 \times 6\frac{1}{2}$. Pp. xviii + 504. Paris: Boccard, 1926.
- *Herculé. Étude critique des principaux monuments relatifs à l'Hercule Étrusque. Par Jean Bayet. $10 \times 6\frac{1}{4}$. Pp. ix + 276. Supplement to *Les Origines de l'Hercule Romain*. Paris: Boccard, 1926.

Roman Archaeology.

- *The Roman Campagna in Classical times. By Thomas Ashby. $8\frac{1}{2} \times 5\frac{1}{2}$. Pp. 256. London: Benn, 1927. 21s.
- *A History of the Ancient World. By M. Rostovtzeff. Volume ii, Rome. Translated from the Russian by J. D. Duff. $9\frac{3}{4} \times 6\frac{1}{4}$. Pp. xv + 387. Oxford: at the Clarendon Press, 1927. 21s.
- *Was Rome a Twin-town? By Rendel Harris. Woodbrooke Essays, no. 8. $9\frac{1}{2} \times 6\frac{1}{4}$. Pp. 27. Cambridge: Heffer, 1927. 2s.

Sculpture.

- *Victoria and Albert Museum. A picture book of Portrait Busts. $7\frac{1}{2} \times 5$. Pp. 24. London: Stationery Office, 1927. 6d.
- *Victoria and Albert Museum. A picture book of Children in Sculpture. $7\frac{1}{2} \times 5$. Pp. 24. London: Stationery Office, 1927. 6d.

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